#### Delaval, Jan

From:

Sent:

Roark, Jessica Wednesday, June 12, 2002 10:45 AM Delaval, Jan 09/780035

To: Subject:

Jan,

Please search the following from 09/780,035 in all protein databases

SEQ ID NOS:9-14.

Results on paper please.

Thanks!

Jessica H. Roark

CM1 9D04 Mailbox 9E12 Art Unit 1644 703 605-1209

> Jan Delaval Reference Librarian Biotechnology & Chemical Library CM1 1E07 -- 703-308-4498 jan.delaval@uspto.gov

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OM protein - protein search, using sw model
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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## SUMMARIES

1 2 3 4 4 5 5 7 7 7 8 8 9 11	Result No.
37 37 37 37 37 37 37 37 37	Score
100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 97.3 91.9	Query Match Length DB
6 113 113 114 121 121 123 222 1471 608	Length
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Murine antibody santi-II-18 antibod Anti-II-18 antibod Anti-II-18 antibod Murine antibody Samurine PSCA Ab hea Anti-adipocyte mon Chimeric antibody Drosophila melanog Drosophila melanog Heavy chain variab	Description

DIOSOPHIA meranos	ABB70955	22		86.5	32	4.5
molan	AAW82742	20		86.5	32	44
CALGATIZE C	0	22		86.5	32	ر <u>4</u> ا د
17:15	AAE12810	22		86.5	32	42
t-tuning	AAR76088	16		86.5	32	41
SS 1 heavy	AAR76085	16		86.5	32	40
Trosopitite "Cha	ABB63707	22		86.5	32	39
יובטטטניים מוויים	AAW82743	20		86.5	32	38
2 ! D	AAG46648	21		86.5	32	37
	AAG4 554 9	21		86.5	32	36
Arabidonsis thalia	AAG46650	21		86.5	32	35
	AAG20197	21		86.5	32	34
	AAG42313	21		86.5	32	ω ω
	AAY 065/9	20		86.5	32	32
	AAG184U8	21		86.5	32	31
is thali	AAG45008	21		86.5	32	30
Zea mays protein f	AAM95/42	22		86.5	32	29
roductiv	AAG45009	17		86.5	32	28
	AAB21359	21		89.2	33	27
antibody 2	AA000404	22	115	89.2	33	6
nolvmentic	AAW86003	20		91.9	34	5
5T4 Si	AAB83838			91.9	34	24
	AAB83836			91.9	34	ü
arid sequen	AAW86004			91.9	34	ວັ
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alluda piae	AAW86002	20		91.9	34	ŏ
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) H	AAY42294	20		91.9	34	œ
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Human immunoglobul	3356396 366396		1	2	-	1

## ALIGNMENTS

AAB50794 RESULT AAB50794 standard; Protein; 6 AA. Murine antibody S2C6 heavy chain variable region CDR1. 21-MAR-2001 (first entry) ААВ50794; --ا

Mouse; antibody; S2C6; heavy chain variable region; CD40; cancer; inflammatory disease; immune system disorder; CDR;

complementarity determining region.

Mus musculus.

WO200075348-A1

14-DEC-2000

08-JUN-2000; 2000WO-US15749

08-JUN-1999; 99US-0328296

(SEAT-) SEATTLE GENETICS INC.

Siegall CB, Wahl AF, Francisco JA, Fell HP;

WPI; 2001-071080/08.

Anti-CD40 antibodies which immunospecifically bind CD40, useful for prevention and treatment of cancer, inflammatory diseases and disorders or deficiencies of immune system -

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PI XXX D XXX D PI PI PI XXX D 
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AAG65299
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inflammatory bowel disease, and osteoarthritis), neurological disorders (e.g., Huntington's chorea, Parkinson's disease, Alzheimer's disease, and stroke), heart failure, myocardial infarction, autoimmune diseases such as autoimmune hepatitis and autoimmune neutropaenia, and mental disorders (e.g., depression and schizophrenia). Treatment with an anti-IL-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
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                                                                                                                                                                                                              The invention provides isolated antibodies, or antigen-binding porticular are capable of binding to human interleukin-18 (IL-18). The antibodies may be used to inhibit human IL-18 activity in, and treat disorder where IL-18 is detrimental in, a human subject suffering free inflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease, the first of the contractivity in the contra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders, neurological disorders, heart failure, myocardial infarction, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-550020/61.
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nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W0200158956-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAG65299;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 88; 91pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25; Page 37; 91pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Brocklehurst SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antidepressant; neuroleptic; hepatotropic; 2E1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Roguska M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 37;
100.0%; Pred. No.
tive 0; Mismatch
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mankovich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             White M, nkovich J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shorrock CP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Labkovsky B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Thompson JE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Salfeld J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                              treat
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AAG65308
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antibodies may be used to inhibit human IL-18 activity in, and treat a disorder where IL-18 is detrimental in, a human subject suffering from, inflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease, inflammatory bowel disease, and osteoarthritis), neurological disorders (e.g., Huntington's chorea, Parkinson's disease, Alzheimer's disease, and as autoimmune hepatitis and autoimmune neutropaenia, and mental disorders autoimmune hepatitis and autoimmune neutropaenia, and mental disorders (e.g., depression and schizophrenia). Treatment with an anti-IL-18 aetoid agent selected from an antibody, or fragment, capable of binding human IL-12, methotrexate, anti-tumor necrosis factor, corticosteroids, cyclosporin, rapamycin, FK506, and non-steroidal anti-inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                   The invention provides isolated antibodies, or antigen-binding that are capable of binding to human interleukin-18 (IL-18). The capable of binding to human interleukin-18 (IL-18).
                                                                                                                                                                                                                                                          Example 2; Page 37; 91pp; English.
                                                                                                                                                                                                                                                                                                  neurological disorders, heart failure, myocardial infarction,
                                                                                                                                                                                                                                                                                                                  Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders,
                                                                                                                                                                                                                                                                                                 autoimmune diseases -
                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-550020/61.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ghayur T, Dixon RW,
                                                                                                                                                                                                                                                                                                                                                                                                                                    Lennard SN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (BADI ) BASF AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-FEB-2000; 2000US-0181608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-FEB-2001; 2001WO-US04170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-AUG-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200158956-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IL-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective; noottopic; neurological; antiinflammatory; antiparkinsonian; cardiant; immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Anti-IL-18 antibody 2E1 heavy chain sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAG65308;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAG65308 standard; protein; 113 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antibody may occur before, concurrent, or after administration of a second agent selected from an antibody, or fragment, capable of binding human II-12, methotrexate, anti-tumor necrosis factor, corticosteroids, cyclosporin, rapamycin, FK506, and non-steroidal anti-inflammatory agents. The present sequence represents an anti-II-18 antibody 2El heavy chain CDR1 fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 tgyyih 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 TGYYIH
                                                                                                                                                                                                                                                                                                                                                                                  AAH47511
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                                                                                                                                                                                                                                                                                                                                                                                                                                               Brocklehurst SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            Roguska M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                         M, White M,
Mankovich J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Labkovsky B,
Shorrock CP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Salfeld J;
Thompson JE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                      portions,
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RESULT
AAG65352
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                agents. The present sequence represents an anti-IL-18 antibody 2El heavy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAG65352 standard; Protein; 113 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  chain sequence.
                                                                                             The invention provides isolated antibodies, or antigen binding portions, that are capable of binding to human interleukin-18 (IL-18). The antibodies may be used to inhibit human IL-18 activity in, and treat a disorder where IL-18 is detrimental in, a human subject suffering from, inflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease, inflammatory bowel disease, and osteoarthritis), neurological disorders (e.g., Huntington's chorea, Parkinson's disease, Alzheimer's disease, and stroke), heart failure, myocardial infarction, autoimmune diseases such as autoimmune hepatitis and autoimmune neutropaenia, and mental disorders (e.g., depression and schizophrenia). Treatment with an anti-IL-18 antibody may occur before, concurrent, or after administration of a second agent selected from an antibody, or fragment, capable of binding human IL-12 methorrevate anti-timer necrosis faster.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAG65352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  II-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective; nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant; immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-FEB-2001; 2001WO-US04170.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-AUG-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Anti-IL-18 antibody 2E1 heavy chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                          Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders, neurological disorders, heart failure, myocardial infarction, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; AAH47511.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ghayur T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200158956-A2.
                                                                                                                                                                                                                                                                                                                             Example 2; Page 86; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                             autoimmune diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Duncan AR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (BADI ) BASF AG
                                                                human IL-12, methotrexate, anti-tumor necrosis factor, corticosteroids, cyclosporin, rapamycin, FK506, and non-steroidal anti-inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30 tgyyih 35
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4
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                                                  The present sequence represents an anti-IL-18 antibody 2EI heavy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dixon RW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dixon RW, Roguska M, White M, Brocklehurst SM, Mankovich J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0181608
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DВ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Labkovsky B,
Shorrock CF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 113;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Salfeld J;
Thompson JE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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Sequence

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RESULT
AAB50793
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AAE03752
ID AAE0
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                                                                                                                                                  Best Local Similarity
Matches 6; Conser
                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mouse; antibody; S2C6; heavy chain variable region; CD40; cancer; inflammatory disease; immune system disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Murine antibody S2C6 heavy chain variable region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB50793 standard; Protein; 114 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Siegall CB, Wahl AF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-JUN-2000; 2000WO-US15749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-MAR-2001 (first entry)
                                                                                                                                                                                                                                                                                  inflammatory and immune system accounts. Sjogren's syndrerythematosus, scleroderma, inflammatory myositis, Sjogren's syndrerythematosus, scleroses, rheumatorid arthritis, multiple mixed connective tissue disease, rheumatorid arthritis, multiple sclerosis, inflammatory bowel disease, acute respiratory distress sclerosis, inflammatory bowel disease, acute respiratory distress sclerosis, delayed type
                                                                                                                                                                                                                                                                                                                         The present invention provides the protein and coding sequences of anti-CD40 antibodies. These can be used in the treatment of cancer and inflammatory and immune system diseases, including systemic lupus erythematosus, scleroderma, inflammatory myositis, Sjogren's syndrome,
                                                                                                                                                                                                                                                                                                                                                                                                   Claim 3; Fig 2; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                Anti-CD40 antibodies which immunospecifically bind CD40, useful for prevention and treatment of cancer, inflammatory diseases and disorders or deficiencies of immune system -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; AAC91890.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-071080/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200075348-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (SEAT-) SEATTLE GENETICS INC
               AAE03752 standard; Protein; 121 AA
                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                     thrombocytopaenic purpura
                                                                                                                                                                                                                                                                 hypersensitivity, asthma, primary biliary cirrhosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity hes 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30 tgyyih
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 TGYYIH 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ç
                                                                                       30 tgyyih 35
                                                                                                                     1 TGYYIH 6
                                             σ
                                                                                                                                                                                                                                                                                 pulmonary inflammation, osteoporosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>3</u>5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                          114 AA;
                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0328296.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
                                                                                                                                                                   100.0%;
                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Francisco JA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 37; DB : Pred. No. 7.5;
                                                                                                                                                                  Score 37; DB 22; Pred. No. 7.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 22;
                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 113;
                                                                                                                                                                                     Length 114;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                         ayed type
and idiopathic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                             cancer and
                                                                                                                                                         0
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                                                                                                   Query Match
                                                                                                                                                                                       anchored protein. The present invention relates to anti-PSCA antibody composition and methods of killing PSCA-expressing cancer cells. PSCA is useful for inhibiting and killing the growth of PSCA-expressing cancer cells such as prostate cancer, bladder cancer or lung cancer cells. Humanised antibody conjugated to a toxin or a radioactive isotope is used for killing the cancer cells. PSCA is useful for specifically targetting PSCA-expressing tumour cells in vivo and for inhibiting or killing these cancers and for diagnosing and staging of PSCA-expressing cancer, for purification or immunoprecipitation of PSCA from cells, and for detection and quantitation of PSCA in vitro. PSCA DNA is also useful for treating
                                                                                                                                                                                                                                                                                                                                                                            The present sequence is murine prostate stem cell antigen (PSCA) antibody (Ab) heavy chain variable region domain (VH) from hybridoma clone 6B8.LD7.2B3, Asc# 2761. PSCA is a single subunit glycoprotein that is expressed on the cell surface as a glycosylphosphatidylinositol (GPI).
                                 ( 1 TGYYIH 6
                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel anti-prostate stem cell antigen (PSCA) antibody that internalizes on binding to PSCA on mammalian cell and inhibits growth of PSCA-expressing cancer cells in vivo, useful for killing PSCA-expressing cancer cells -
                                                                                                                                                                                  cancers by gene therapy techniques.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 22; Fig 12; 112pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-389954/41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27-OCT-2000; 2000WO-US29603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-JUN-2001.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-FEB-2000; 2000US-0182872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Murine; prostate stem cell antigen; PSCA; cytostatic; gene therapy; glycoprotein; cancer; prostate; bladder; lung; tumour; Ab; antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Murine PSCA Ab heavy chain variable region domain from clone 6B8.1D7.2B3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        heavy chain variable domain; VH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-AUG-2001 (first entry)
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     30
                                                                                    Local Similarity
tgyyih 35
                                                                      6,
                                                                                                                                                    121 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Keller G, Koeppen H,
                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99US-0162558.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "Complementarity determining region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note= "Complementarity determining region 3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /label- CDR2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note "Complementarity determining region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /label= CDR]
                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDR3
                                                                  0;
                                                                                Score 37; I
                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lasky LA;
                                                                                              DB 22; Length 121;
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AAE03757;

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AAE03757
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                                                                                                                                                      Matches
                                                                                                                                                                                     Query Match
AAE03757 standard; Protein; 222
                                                                                                                                                                                                                                                           presence of adipocyte antigen on the surface of an adipocyte to detect or determine the presence or level of adipocytes in a cell or tissue sample. The antibodies can be used as an alternative means of treatment for obese patients other than undergoing surgery to remove excess fat. Antibodies for different types of fat deposits can also be produced e.g. intra-abdominal fat associated with heart disease.
                                                                                                                                                                                                                                                                                                                                                           obesity related diseases. The antibodies can be used to deliver drugs or pro-drugs directly to the fat mass of an obese patient or the antibody can be used as a therapeutic itself. Antibodies binding specifically to adipocytes can be used to activate the immune system to destroy the cells by complement mediated lysis. The antibodies may be labeled with a detectable label such as radiolabel, fluorescent or chemical group and used in methods of diagnosis in human subjects e.g. to determine the
                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU02501-AAU02635, and AAU02641-AAU02748 represent the amino acid sequences of anti-adipocyte monoclonal antibody heavy chain, light chain, and heavy chain complementarity determining regions (CDR) of the invention. The antibodies can be used in the treatment of obesity and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Panel of specific binding members of antibody molecules which bind whole adipocytes is used in the treatment of obesity and obesity related diseases - \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 147; 182pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-282031/29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-OCT-2000; 2000WO-GB03900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-APR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Antibody; adipocyte; heavy chain; light chain; obesity; fat; heart disease; complementarity determining region; CDR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAU02587;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Anti-adipocyte monoclonal antibody heavy chain, FAT 74.
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                                                                                   30 tgyyih 35
                                                                                                                                                                     Local Similarity
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                                                                                                                    1 TGYYIH 6
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                                                                                                                                                      6;
                                                                                                                                                                                                                                      123
                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                      AA;
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                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vaughan TJ;
                                                                                                                                                    0;
                                                                                                                                                              Score 37; DB;
Pred. No. 8.2;
                                                                                                                                                    Mismatches
                                                                                                                                                                                DB 22;
                                                                                                                                                0;
                                                                                                                                                                                  Length 123;
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                                                                                                                                             Gaps
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07<sup>5</sup>AUG-2001 (first entry)

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                                                                    Matches
                                                                                                 Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chimeric antibody 6B8 Fab heavy chain (6B8.1D7.2B3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chimeric - Mus musculus.
                                                                                                                                                                                                      killing PSCA-expressing cancer cells. PSCA is useful for inhibiting and killing the growth of PSCA-expressing cancer cells such as prostate cancer, bladder cancer or lung cancer cells. Humanised antibody conjugated to a toxin or a radioactive isotope is used for killing the cancer cells. PSCA is useful for specifically targetting PSCA-expressing tumour cells in vivo and for inhibiting or killing these cells. The antibodies are also useful for treating the above mentioned cancers and for diagnosing and staging of PSCA-expressing cancer, for purification or immunoprecipitation of PSCA from cells, and for detection and quantitation of PSCA in vitro. PSCA DNA is also useful for treating
                                                                                                                                                                                                                                                                                                                                                                           The present chimeric sequence is full length 2761 antibody binding fragment (Fab) heavy chain (6B8.1D7.2B3) derived from murine heavy chain variable region (VH) and human heavy chain constant region. This antibody binds to prostate stem cell antigen (PSCA) which is a single subunit glycoprotein that is expressed on the cell surface as glycosylphosphatidylinositol (GPI)-anchored protein. The present invention relates to anti-PSCA antibody composition and methods of invention relates to anti-PSCA antibody composition and methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200140309-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chimeric -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel anti-prostate stem cell antigen (PSCA) antibody that internalizes on binding to PSCA on mammalian cell and inhibits growth of PSCA-expressing cancer cells in vivo, useful for killing PSCA-expressing cancer cells -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-FEB-2000; 2000US-0182872.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-OCT-2000; 2000WO-US29603.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 5; Fig 13; 112pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-389954/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-OCT-1999;
                                                                                                                                                     Sequence
                                                                                                                                                                                        cancers by gene therapy techniques.
30 tgyyih 35
                                                                                    Local
                                    1 TGYYIH 6
                                                                  6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Keller G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0162558.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   region (VH) 116..222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "Derived from mouse heavy chain variable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note=
                                                                                    100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Koeppen H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Derived from human heavy chain constant
                                                                      0;
                                                                    Score 37; DB 22; Pred. No. 15; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lasky LA;
                                                                        0;
                                                                                                          Length 222;
                                                                        Indels
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RESULT

pharmaceutical.

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ABB58739
В
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                                                                                                                                                                    RESULT
                                                                                                                                                                                                                                                                    Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             prosophila melanogaster polypeptide SEQ ID NO 3009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABB58739 standard; Protein; 1471 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to an isolated nucleic acid detection reagent capable of detecting 1000 or more genes from Drosophila. The invention useful in developmental biology and in elucidating cell signalling and cell-cell interactions in higher eukaryotes for the development of insecticides, therapeutics and pharmaceutical drugs. The invention discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA discloses genomic DNA sequences (ABL16176-ABL30511).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Drosophila; developmental biology; cell signalling; insecticide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-MAR-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABB58739;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New isolated nucleic acid genes from Drosophila and interactions .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200171042-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     pharmaceutical
                                                                                                                                                                                                                                                                                                                                                            The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; SEQ ID NO 3009; 21pp + Sequence Listing; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Venter JC, Adams M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-MAR-2000; 2000US-191637P
11-JUL-2000; 2000US-0614150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-MAR-2001; 2001WO-US09231
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                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (PEKE ) PE CORP NY.
                                                prosophila melanogaster polypeptide SEQ ID NO 19626
                                                                                                                                      ABB64278 standard; Protein; 608
                                                                                                                                                                                                                                                                                                                                                                                                                       sequences (ABL01840-ABL16175) and the encoded proteins
                         Drosophila; developmental biology; cell signalling; insecticide;
                                                                               26-MAR-2002
                                                                                                           ABB64278;
                                                                                                                                                                                                          679 tgyyih 684
                                                                                                                                                                                                                                                                                                                                                                                                            ABB57737-ABB72072
                                                                                                                                                                  10
                                                                                                                                                                                                                                      1 TGYYIH 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001-656860/75.
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                                                                                                                                                                                                                                                                                                                                        1471 AA;
                                                                                                                                                                                                                                                                    Conservative
                                                                               (first entry)
                                                                                                                                                                                                                                                                               100.0%; Score 37; DB 22; 100.0%; Pred. No. 1.1e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PWD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             detection reagent for detecting 1000 or more for elucidating cell signalling and cell-cell
                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Myers EW;
                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                Length 1471;
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                                                                                                                                                                                                                                                                                                         Query Match
Best Local :
                                                                                                                                                                                                                              LT 11
         (BION-) BIONEBRASKA INC
                            2(7 - JAN - 1994;
                                               27-JAN-1995;
                                                                  03-AUG-1995
                                                                                    W09520607-A
                                                                                                       Synthetic.
                                                                                                                             Monoclonal antibody; heavy metal; mercury; variable region.
                                                                                                                                                Heavy chain variable region for monoclonal antibody 23F8.
                                                                                                                                                                         21-DEC-1995
                                                                                                                                                                                          AAR79244;
                                                                                                                                                                                                        AAR79244 standard; Protein; 114 AA
                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to an isolated nucleic acid detection reagent capable of detecting 1000 or more genes from Drosophila. The invention is useful in developmental biology and in elucidating cell signalling and cell-cell interactions in higher eukaryotes for the development of insecticides, therapeutics and pharmaceutical drugs. The invention discloses genomic DNA sequences (ABL01876-ABL30511), expressed DNA sequences (ABL01840-ABL16175) and the encoded proteins (ABB7737-ABB72072).
                                                                                                                        heavy chain
                                                                                                                                                                                                                                                                                                                                                          The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; SEQ ID NO 19626; 21pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New isolated nucleic acid genes from Drosophila and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; ABL08381.
                                                                                                                                                                                                                                                        509 tgyyvh 514
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Venter JC, Adams M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-MAR-2000; 2000US-191637P
11-JUL-2000; 2000US-0614150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                interactions -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Drosophila melanogaster
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                                                                                                                                                                                                                                                                          1 TGYYIH 6
                                                                                                                                                                                                                                                                                                                                              608 AA;
                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                       (first entry)
                          94US-0187407
                                              95WO-US01199.
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83.3%;
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    Mismatches

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Pred. No.
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. 67;
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                                                                                                                                                                                                                                                                                                            Length 608;
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                               AAR66296
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(NISB ) JAPAN TOBACCO INC
                     10-MAY-1993;
                                        10-MAY-1993;
                                                          24-NOV-1994.
                                                                             W09426895-A
                                                                                              Homo sapiens
                                                                                                                                                               07-AUG-1995
                                                                                                                                                                                    AAR66296;
                                                                                                                                                                                                                                                                                                                                     Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1995-275415/36
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                                                                                                                                                                                                                                                                    1 TGYYIH 6
                                                                                                                                                                                                                                                                                                                                     114 AA;
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CC Hybridoma antibodies have been produced with the spleen cells of CC BALB/C mouse that had received multiple injections of mercuric ions CC reacted with glutathione to produce a mercuric ion coordinate CC covalent compound which was covalently bound to keyhole limpet CC hemocyanin (KLH). Eight hybridomas (1F10, 4A10, 1C11, 5G4, 23F8, 2D5, CC 5B6 and 3E8) were producing MAbs that were strongly positive against glutathione-mercuric ions but negative against glutathione CC without mercuric ions. RNA was isolated from hybridoma cells with CG guanidine isothiocyanate. First strand cDNA synthesis was catalysed by Mulv reverse transcriptase. The primers used for cDNA synthesis of the CG were complementary to the 5' end of the CH1 domain of the heavy CC chain expressed by the hybridoma of interest, or to the 5' and of CC chain expressed by the hybridoma of interest, or to the 5' and of CC wariable region of a particular antibody polypeptide was also used CC variable region primer used for cDNA synthesis of the CC wariable region primer. In addition, the VH primer AAQ97518 CC an appropriate v-region primer. In addition, the VH primer AAQ97518 CC an appropriate v-region primer. In addition, the VH primer AAQ97518 CC of the PCR amplification of that variable region. In conjunction with CC an appropriate v-region primer. In addition, the VH primer AAQ97518 CC of the PCR amplified nucleotides were determined. These are given CC AAR78970-R78971. The descriptions of the SEQ ID nos given on pp 44-45 cc sequence listings. The descriptions in the sequence listings are
                                                                                                                                                                                                                                                                                                                                                                                                                        Primer; PCR; amplify; human; immunoglobulin; variable; heavy chain; cosmid; placenta; vector; pJB81; E.coli; mammalian.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human immunoglobulin variable heavy chain #2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAR66296 standard; Protein; 117 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     neutralising heavy metals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New polypeptide(s) which bind heavy metals, esp. mercury - derived from monoclonal antibodies, used for detecting, removing, adding or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wagner FW,
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93WO-JP00603
                                                                              93WO-JP00603
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83.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16; Length 114;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            chain sequences encoded by novel isolated genes. The genes (AAQ78939-79002) were isolated and cloned from a series of cosmid constructs: Y202; Y103; Y21; Y6;Y24; 3-31; M84; M118 and M131, by PCR constructs: Y202; Y103; Y21; Y6;Y24; 3-31; M84; M118 and M131, by PCR amplification using primers AAQ78917-38. The genes are subdivided into 5 families of vh genes. The fragments cover a region of 800 kb. The DNA fragments were isolated from high molecular weight DNA from human placenta. The DNA was partially digested with TaqI restriction enzyme. The fragments were separated by gel elecrophoresis and 35-45 kb fractions were collected. The fragments were ligated with ClaI-digested cosmid vector DJB81. The ligation products were in vitro packed and infected into E. coli 490A. The fragments were then subcloned by colony hybridisation. The Vh genes and the DNA fragments encoding them are
                                                                                                                                                                                          07-JUN-1995;
05-MAR-1993;
09-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA fragment comprising human immunoglobulin Vh genes production of human immunoglobulin in mammalian hosts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1995-006791/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB; AAQ78940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Horijo T, Matsuda F;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 32-33; 130pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                      Monoclonal antibody; MAb; LO-CD2a; humanised antibody; chimeric; T-cell; immune response; CD2 antigen; graft-versus-host disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               useful in producing human immunoglobulin in mammalian hosts.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Heavy chain variable region of human Amu 5-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-DEC-1998
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                                                                                                                                                                                                                                                                  07-JUN-1995;
                                                                                                                                                                                                                                                                                                   06-OCT-1998
                                                                                                                                                                                                                                                                                                                                      US5817311-A
                                                                                                                                                                                                                                                                                                                                                                                                           human lymphocyte;
Inhibition of T-cell mediated immune response with anti-CD2 monoclonal antibody LO-CD2a - used for preventing transplant rejection or for treating graft-versus-host disease or auto-immune
                                                                         WPI; 1998-556337/47.
                                                                                                        Bazin H,
                                                                                                                                       (UYLO-) UNIV CATHOLIQUE LOUVAIN
                                                                                                                                                                            29-MAR-1995;
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                                                                                                          Latinne D;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                            95US-0472281.
93US-0027008.
93US-0119032.
95US-0407009.
                                                                                                                                                                                                                                                                    95US-0472281.
                                                                                                                                                                                                                                                                                                                                                                                                           transplant rejection; autoimmune disease; Amu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              91.9%;
83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 34; DB
Pred. No. 29;
1; Mismatches
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This represents the amino acid sequence of the light chain variable region of human antibody clone Amu 5-3. This is used to construct a humanised antibody LO-CD2a. The invention relates to the use of the monoclonal antibody (MAD) LO-CD2a or a humanised or a chimeric version of the LO-CD2a antibody for the inhibition of a T-cell mediated immune response in a patient. The MAD LO-CD2a (produced by hybridoma cell line ATCC HB 11423) can bind to an epitope on the CD2 antigen of the human lymphocytes. The T-cell mediated immune response in a patient can be than bited by administering the MAD LO-CD2a or an antibody that binds to the same human lymphocyte epitope as LO-CD2a. The method is used for preventing transplant rejection or for treating graft-versus-host
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            preventing transplant rejection or for treat disease or for treating autoimmune diseases.
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                           This invention describes a novel antibody specifically recognizing phosphatidylinositol-3,4,5-triphosphate (PIP3). The antibody of the invention is used in immunogenic compositions in which a dead salmonella genus microbe is used as an adjuvant and mixed with PIP3. The antibody can be used in an immunoassay containing a step in which the above antibody or its variable region is reacted with PIP3 present in a sample and the bond based on their immunological reaction. The method can determine PIP3 easily in a high sensitivity. This sequence represents
                                                                                                                                                                                                                         A monoclonal antibody recognizing phosphatidylinositol-3,4,5-triphosphate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PIP3; phosphatidylinositol-3,4,5-triphosphate; variable region;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Murine PIP3 recognizing Mab variable region heavy chain protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY87655 standard; Protein; 124 AA.
                                                                                                                                                                                                                                                                                                                                                                                    07-SEP-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           immunogen; antibody; heavy chain
the murine PIP3 recognizing monocional antibody variable region heavy chain described in the method of the invention.
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nes 5; Conser
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Pred. No.
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31;
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Query Match
Best Local Similarity
Matches 5; Conserve
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Best Local Similarity 83...
"atches 5; Conservative
                                                                                 The present sequence is a human anti-tumour antigen monoclonal antibody (MAb) heavy chain variable region, useful in medicine, pharmacology and biochemistry. The isotype of a MAb secreted by the human/human hybridoma HT was determined to be mu and kappa. Human MAb was purified, and the antigen recognised by human MAb CLN"-igM identified by western blotting.
                                                                   Sequence
                                                                                                                                                                     Claim 3; Page 10; 14pp; Japanese.
                                                                                                                                                                                                    Anticancer human monoclonal antibody variable region sequences - and
                                                                                                                                                                                                                                                                                         03-OCT-1995;
                                                                                                                                                                                               related DNA and RNA
                                                                                                                                                                                                                                 N-PSDB; AAT75422.
                                                                                                                                                                                                                                            WPI; 1997-276726/25.
                                                                                                                                                                                                                                                                                                                                     15-APR-1997.
                                                                                                                                                                                                                                                                                                                                                           JP09100300-A.
                                                                                                                                                                                                                                                                                                               03-OCT-1995;
                                                                                                                                                                                                                                                                                                                                                                                               Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; tumour antigen; cancer; monoclonal; antibody; heavy chain; variable region; medicine; pharmacology; biochemistry; CDR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human anti-tumour antigen antibody heavy chain variable region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-SEP-1997 (first entry)
                                                                                                                                                                                                                                                                  (HAGI/) HAGIWARA Y.
                                                                                                                                                                                                                                                                                                                                                                                                                     Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complementarity determining region.
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      91.9%;
nilarity 83.3%;
Conservative
                                                                 146 AA;
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69..85
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20..146
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    Score 34; DB 18; Length 146; Pred. No. 37; 1; Mismatches 0; Indels
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    0;
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
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OM protein - protein search, using sw model

June 12, 2002, 11:24:36; Search time 29.47 Seconds (without alignments) 7.883 Million cell updates/sec

Title: Perfect score: US-09-780-035-9 37 1 TGYYIH 6

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched: 105224 seqs, 38719550 residues

number of hits satisfying chosen parameters:

105224

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : SwissProt\_40:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

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# ALIGNMENTS

RESULT Y493_R ID Y AC Q DT 1	Qy	Qu Be	SQ.	FT.	W F	DR	DR DR	DR S	D R	CC	3 8	38	8	38	38	8	P. 7	3 7	RA	RA	χ <del>χ</del>	RN	0 <b>x</b>	8	S S	DE	Dī	֡֞֟֓֓֓֓֞֟֝֟֝֓֓֓֓֓֓֓֓֓֓֓֓֓֓֟֟֓֓֓֓֓֓֓֓֟֓֓֓֟	A.C.	ij	RESULT	
49 : LT 2 _RICPR Y493_J Q9ZD55	1 TGYYIH 6	Query Match 91.9%; Score 34; DB 1; Length 117; Best Local Similarity 83.3%; Pred. No. 2.5; Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;	ÀA;	$\frac{1}{20}$ 1	Immunoglobulin V region; Signal.	; IGv; 1.	InterPro; IPR003596; Ig_v.				or send an email to license@isb-sib.ch).	tatement	non-profit institutions as long as its content is in no	the European Bioinformatics Institute. There are no restrictions on its	ROT entry is copyright. It is produced throug		EMBO J. $7:1047-1051(1988)$ .	"Dispersed Localization of D segments in the numan immunogropulin	kuhara S., Honjo T.;		MEDITINE=88096408: DibMod=2841108:		D=9606;	ia; Primates; Catarrhini; Hominidae;		gion 1	(Rel. 38, Last annotation	01-NOV-1991 (Rel. 20, Cleaced) 01-NOV-1991 (Rel. 20, Last sequence update)	1001 70		S HUMAN	

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P36751;
 use by non modified and
                                                                                                                                                                                                                                        01-JUN-1994 (Rel.
01-JUN-1994 (Rel.
01-OCT-1996 (Rel.
                                                                            "Primer-directed sequencing of human papillomavirus types."; Curr. Top. Microbiol. Immunol. 186:13-31(1994).
                                                                                                                                                           Papillomavirus.
NCBI_TaxID=10607;
                                                                                                                                                                                    Viruses;
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SEQUENCE
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                         the European
                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                       Delius H., Hofmann B.;
                                                                                                                     MEDLINE=94265501; PubMed=8205838;
                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                 Human papillomavirus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nature 396:133-140(1998).
-i- COFACTOR: BINDS ONE ZINC ION PER MOLECULE (POTENTIAL).
-i- SIMILARITY: BELONGS TO THE ALDOLASE CLASS II FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "The genome sequence of Rickettsia prowazekii and the origin mitochondria.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-99039499; PubMed-9823893;
Andersson S.G.E., Zomorodipour A., Andersson J.O.,
Sicheritz-Ponten T., Alsmark U.C.M., Podowski R.M., Naeslund
Eriksson A.-S., Winkler H.H., Kurland C.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hypothetical protein; Zinc; METAL 94 94 96 96
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    not removed
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"A novel proviral clone of HIV-2: biological and relationship to other primate immunodeficiency vi Virology 177:305-311(1990).

-i- MISCELLANEOUS: THIS ISOLATE IS FROM A GERMAN DRRDOMINANTLY NEUROLOGICAL COMPLICATIONS) WHO
                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                   SEQUENCE
                                                                                                                                          PRINTS; PRO0444; HIVVPRVPX.
                                                                                                                                                                                  HIV; M30502; VPR$2BEN
                                                                                                                                                                                              EMBL; M30502; AAB00740.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                 Kirchhoff F., Jentsch K., Bachmann B., Stuke A., Lalov Lueke W., Stahl-Henning C., Schneider J., Nieselt K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Viruses; Retroid NCBI_TaxID=11714;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR000784; Late_L2.
Pfam; PF00513; late_protein_L2;
Coat protein; Late protein.
SEQUENCE 524 AA; 56865 MW; 7
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01-JUL-1993
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                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. MEDLINE-90281594; PubMed-2353457;
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83.3%;
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RESULT 5
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1: sp_archea:*
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11: sp_rodent:
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11: sp_unclass
15: sp_archea;
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1 TGYYIH 6
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Copyright (c) 1993 - 2000 Compugen Ltd.
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sp_bacteria:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Query	dФ		
		SUMMARIES	

16	15	14	13	12	11	10	9	8	7	6	ഗ	4	ω	2	1	Result
32	32	32	32	32	32	32	32	33	34	34	36	36	37	37	37	Score
86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	89.2	91.9	91.9	97.3	97.3	100.0	100.0	100.0	Query Match
221	221	221	221	221	170	133	114	231	125	119	809	218	1471	558	206	Length 1
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45	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
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	Q9syy3 arabidopsis	Q21801 caenorhabdi	Q20031 caenorhabdi	variola vi	Q9y919 aeropyrum p	Q34096 crithidia f		Q91ct4 pseudomonas	Q33574 trypanosoma	Q911d0 streptomyce	Q9j572 fowlpox vir	Q20030 caenorhabdi	095978 homo sapien	Q9rd46 streptomyce	Q9vdk3 drosophila	1	Q20046 caenorhabdi	090139 mamestra br	Q9c776 arabidopsis	Q9jtp6 neisseria m	Q9jyq5 neisseria m	P90914 caenorhabdi	Q9j575 fowlpox vir	014133 schizosacch	Q9vhf2 drosophila	Q944c6 triticum ae		004664 arabidopsis

## ALIGNMENTS

RES Q84	Db Qy	<b>X</b> B O	FT SQ	DR S	DR DR	DR.	RT	RA RA	RC RP	RN	0 X	SO	DE	D D	DI.	ğ	RES Q65
SULT 2 4169 Q84169	y 1 TGYYIH 6        	Query Match 100.0%; Score 37; DB 12; Length 206; Best Local Similarity 100.0%; Pred. No. 12; Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps						X MEDLINE=96204598; PubMed=8623541; A Bowen M.D., Peters C.J., Nichol S.T.;	SEQUENCE FROM N.A STRAIN=BEAN 70563		C viruses; sskna negative-strand viruses; Arenaviridae; Arenavirus. X NCBI TaxID=45218;	Amapari virus.	NUCLEOCAPSID PROTEIN (FRAGMENT).	T 01-NOV-1996 (TrEMBLrel. 01, Last sequence update) T 01-DEC-2001 (TrEMBLrel. 19, Last annotation update)	01-NOV-1996 (TrEMBLrel.	D Q65297 PRELIMINARY; PRT; 206 AA.	RESULT 1 Q65397

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RA Adams M.D., Cedniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA Adams M.D., Cedniker S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Wan K.H., Doyle C., Baxter E.G., Helt G., Champe M., Pfeiffer B.D.,
RA Ballew R.M., Basu A., Baxter E.G., Helt G., Champe M., Pfeiffer B.D.,
RA Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA Beeson K.F., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
RA Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA Fosler C., Gabrielian A.E., Garg N.S., Gelbart W.M., Glasser K.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Kimmel B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lai Z.,
RA, Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X.,
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A Bowen M.D., Peters C.J., Mills J.N., Nichol S.T.;
A Bowen M.D., Peters C.J., Mills J.N., Nichol S.T.;
Proliveros virus: a novel arenavirus from Argentina.";
I virology 217:362-366(1996).
EMBL; U34248; AAC54655.1; -.
R InterPro; IPR001229; Arena_nucleocap.
R InterPro; IPR001229; Xylose_isom.
R Pfam; PF00843; Arena_nucleocap; 1.
ProDom; PD004728; Arena_nucleocap; 1.
PROSITE; PS00172; XYLOSE_ISOMERASE_1; UNKNOWN_1.
SEQUENCE 558 AA; 62154 MW; 3F617AA78396A3D7 CRC64;
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Q9VA99;
01-MAY-2000 (TrEMBLrel. 1
01-MAR-2001 (TrEMBLrel. 1
01-DEC-2001 (TrEMBLrel. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata;
Pterygota; Neoptera; Endopterygota; Diptera
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=20196006; PubMed=10731132;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=7227;
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3F617AA78396A3D7 CRC64;
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01-JAN-1998
01-JEC-2001
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SEQUENCE
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Palazzolo M., Pittman G.S., Pan S., Pollard J., Puri V., Reese M.G.,
Reinert K., Remington K., Saunders R.D.C., Scheeler F., Shen H.,
Shue B.C., Siden-Kiamos I., Simpson M., Skupski M.P., Smith T.,
Spier E., Spradling A.C., Stapleton M., Strong R., Smith T.,
Syirskas R., Tector C., Turner R., Venter E., Wang A.H., Wang X.,
Wang Z.-Y., Wassarman D.A., Weinstock G.M., Weissenbach J.,
Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,
Ye J., Yeh R.-F., Zaveri J.S., Zhan M., Zhang G., Zhao Q., Zheng L.,
Zheng X.H., Zhong F.N., Zhong W., Zhou X., Zhu X., Smith H.O.,
Gibbs R.A., Myers E.W., Rubin G.M., Venter J.C.;
"The genome sequence of Drosophila melanogaster.";
Science 287:2185-2195(2000).
                                                                                                                                                                                                                                                                                                                                                             AAHEX-ZB.
Aedes aegypti (Yellowfever mosquito).
Aedes aegypti (Yellowfever mosquito).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Eukaryota; Metazoa; Arthropoda; Diptera; Nematocera; Culicoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                             01-JAN-1998 (TrEMBLrel. 05, Created)
01-JAN-1998 (TrEMBLrel. 05, Last seq
01-DEC-2001 (TrEMBLrel. 19, Last anno
HEXAMERIN 2 BETA (FRAGMENT).
                                                                                                                                                                                                                      Submitted (JUN-1997) to the EMBL/GenBank/DDBJ databases EMBL, AP010132; AAB64174.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; AE003772; AAF57015.2; -.
HSSP; P00442; ICB4.
FIYBASe; FEBR0039750; CG2176.
SEQUENCE 1471 AA; 164755 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Liu X., Mattei B., McIntosh T.C., McLeod M.P., McPherson D., Merkulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A., Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,
                                                                                                                                                                                             InterPro;
                                                                                                                                                                                                             HSSP;
                                                                                                                                                                                                                                                     aegypti.";
                                                                                                                                                                                                                                                                Gordadze A.V., Korochkina S.E., Zakharkir "Molecular cloning and expression of two
                                                                                                                                                                                                                                                                                                 STRAIN-ROCK STRAIN;
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                                                            Mismatches
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RESULT Q9VMM5 ID Q9

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Q9VMM5

PRELIMINARY;

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803

OM protein - protein search, using sw model June 12, 2002, 11:20:35; Search time 61.61 Seconds (without alignments) 9.358 Million cell updates/sec GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

Title: Perfect score: US-09-780-035-9 37 1 TGYYIH 6

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched:

283138 seqs, 96089334 residues

number of hits satisfying chosen parameters:

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR\_71:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*
4: pir4:\*

Database :

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	œ	7	6	5	.4	ω	2		No. S	00011+
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526466	F96604	T16274	T51729	в81079	в81864	T23383	T38693	S46498	E70339	5	F97784	G71652	S49530	S46393	S36265	S18551	HVHU35	рн1669	PH1668	S26320	PH0978	S26912	S26938	I44151	097	4998	S67941	9	I	
To hoose V r	protein Fi4G9.10 [	1Cal	A-pr	giutamate denydrog	e grucamac	tcar proc	trna	ng prote	protei	1	e a	e adduc	tibody	heavy chain V	chain V	heavy chain V	heavy chain pr	heavy chain V	heavy chain V	heavy chain V	heavy chain	heavy chain		heavy chain	heavy chain V	g heavy chain	heavy chain va	in	Description	

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1 TGYYIH 6

45	44	43	42	41	40	39	38	37	36	35 5	34	33	32	31	30
31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8
459	451	449	369	347	328	311	307	288	258	258	232	138	126	117	112
2	N	N	N	N	N	N	N	N	2	2	N	Ν	N	2	ν
н85031	T24018	T16259	A72453	F22845	AH1894	D69229	E83093	A05235	AG2671	E97453	T16258	S21810	S58121	S09960	S26473
probable glycosylt	hypothetical proce		-	_		conserved nypother	hypothetical proce	hypothetical prote	surielt 1 [importe	<b>ب</b> د	, C	Ig heavy chain v r	Ig heavy chain v r	Ig heavy chain v-u	Ig heavy chain V r

## ALIGNMENTS

Query Match 100.0%; Score 37; DB 2; Length 105; Best Local Similarity 100.0%; Pred. No. 1.8; Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	RESULT 2 S67941 Ig heavy chain variable region, subgroup I (clone MH52) - human (fragment) C;Species: Homo sapiens (man) C;Accession: S67941 R;Hexham, J.M.; Furmaniak, J.; Pegg, C.; Burton, D.R.; Smith, B.R. Autoimmunity 12, 135-141, 1992 Autoimmunity 12, 135-141, 1992 A;Title: Cloning of a human autoimmune response: preparation and sequencing of a huma A;Reference number: S67940; MUID:92314301 A;Accession: S67941 A;Status: preliminary A;Molecule type: mRNA A;Residues: 1-105 <hexd a;cross-references:="" c;superfamily:="" embl:x73851="" homology<="" immunoglobulin="" region;="" th="" v=""><th>Query Match 100.0%; Score 37; DB.2; Length 104; Best Local Similarity 100.0%; Pred. No. 1.8; Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0; QY 1 TGYYIH 6                 Db 30 TGYYIH 35</th><th>RESULT 1  S69899  Graptens (man) Crate: Homo sapiens (man) Cracession: S69899 Cracession: S69899 Cracession: S69891 Crate: Inmunol. 23, 1220-1225, 1993 Aritle: Synovial IgG rheumatoid factors show evidence of an antigen-driven immune reareston: S69896; MUID:93272805 Aracession: S69899 Aracession: S69896; MUID:93272805 Aracession</th></hexd>	Query Match 100.0%; Score 37; DB.2; Length 104; Best Local Similarity 100.0%; Pred. No. 1.8; Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0; QY 1 TGYYIH 6                 Db 30 TGYYIH 35	RESULT 1  S69899  Graptens (man) Crate: Homo sapiens (man) Cracession: S69899 Cracession: S69899 Cracession: S69891 Crate: Inmunol. 23, 1220-1225, 1993 Aritle: Synovial IgG rheumatoid factors show evidence of an antigen-driven immune reareston: S69896; MUID:93272805 Aracession: S69899 Aracession: S69896; MUID:93272805 Aracession
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Ig heavy chain V region (BO) - human (fragment)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 27-Jun-1994 #sequence_revision 27-Jun-1994 #text_change 28-May-1999
C;Accession: I44151
R;Zebedee, S.L.; Barbas III, C.F.; Hom, Y.L.; Caothien, R.H.; Graff, R.; DeGraw, J.;
Proc. Natl. Acad. Sci. U.S.A. 89, 3175-3179, 1992
A;Title: Human combinatorial antibody_libraries to hepatitis B surface antigen.
                                         A;Reference number: A44151; MUID:92228746
A;Accession: I44151
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R:Tillman, D.M.; Jou, N.T.; Hill, R.J.; Marion, T.N.
J. Exp. Med. 176, 761-779, 1992
A;Title: Both IgM and IgG anti-DNA antibodies are the products of clonally selective A;Reference number: PH0971; MUID:92381444
A;Accession: PH0977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ig heavy chain V region (clone 10-c1) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 30-Sep_1993 #sequence_revision 30-Sep-1993 #text_change 21-Jan-2000
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A; Residues: 1-108 <TIL>
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A;Title: Topology of an amiloride-binding protein.
A;Reference number: A49982; MUID:94132051
A;Accession: A49982
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A;Molecule type: mRNA
A;Residues: 1-120 <LIN>
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C:Species: Mus musculus (house mouse)
C:Date: 10-Nov-1995 #sequence_revision 10-Nov-1995 #text_change 21-Jan-2000
C:Accession: A49982
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Local Similarity 100.0%;
hes 6; Conservative 0
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  preliminary; not compared with conceptual translation
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Pred. No. 2.9;
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Pred. No.
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A;Cross-references: EMBL:Z12310; NID:g32979; PIDN:CAA78180.1; PID:g32980 C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                                                       C;Accession: S26912

R;Tomlinson, I.M.; Walter, G.; Marks, J.D.; Llewelyn, M.B.; Winter, G.

J. Mol. Biol. 227, 776-798, 1992

A;Title: The repertoire of human germline V(H) sequences reveals about fifty groups o A;Reference number: S26885, MUID:93021117

A;Accession: S26912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ig heavy chain V region (DP-8) - human (fragment)
C:Species: Homo sapiens (man)
C:Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 23-Jul-1999
                                                                                                                                 F;15-98/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-98 < TOM>
                                                                                                                                                                                                                                                                                              A; Status: preliminary
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R;Tomlinson, I.M.; Walter, G.; Marks, J.D.; Llewelyn, M.B.; Winter, G.
J. Mol. Biol. 227, 776-798, 1992
A;Title: The repertoire of human germline V(H) sequences reveals about fifty groups o
A;Reference number: S26885; MUID:93021117
A;Accession: S26938
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C;Species: Homo sapiens (man)
C;Date: 22-Nov-1993 #sequence_revision 17-Nov-1995 #text_change 23-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: GB:M88309; NID:g183952; PIDN:AAA35967.1; PID:g183953 A;Note: nucleotide translation not given C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin C;Keywords: heterotetramer; immunoglobulin F;16-99/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-98 < TOM>
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A; Residues: 1-126 <ZEB>
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             Matches
                                 Best Local Similarity
                                                         Query Match
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     Conservative
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83.3%;
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83.3%;
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83.3%;
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                           Score 34; I
Pred. No. 6
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Pred. No. 5
     Mismatches
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                              DB
6.7
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Ig heavy chain V region - mouse
C:Species: Mus musculus (house mouse)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 21-Jan-2000
C:Accession: S26320
R;Stark, Szi, Caton, A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R;Tillman, D.M.; Jou, N.T.; Hill, R.J.; Marion, T.N.
J. Exp. Med. 176, 761-779, 1992
A;Title: Both 19M and 19G anti-DNA antibodies are the products of clonally selective A;Reference number: PH0971; MUID:92381444
A;Accession: PH0978
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C perfamily: inmunoglobulin V region; imunoglobulin homology

words: heterotetramer; immunoglobulin
F, 97/Domain: immunoglobulin homology <IMM>
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                  R;Hillson, J.L.; Karr, N.S.; Oppliger, I.R.; Mannik, M.; Sasso, E.H. J. Exp. Med. 178, 331-336, 1993
A;Title: The structural basis of germline-encoded VH3 immunoglobulin A;Reference number: PH1642; MUID:93301610
                                                                                                      C;Species: Homo sapiens (man)
C;Date: 24-Feb-1994 #sequence_revision 24-Feb-1994 #text_change 16-Aug-1996
C;Accession: PH1668
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A; Residues: 1-107 <STA>
A; Cross-references: EMBL: X59206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Title: Antibodies that are specific for a single amino A;Reference number: S26309; MUID:91341421 A;Accession: S26320
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J. Exp. Med. 174, 613-624, 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Status: preliminary
A; Accession: PH1668
                                                                                                                                                                         Ig heavy chain V region (clone 3G5) - human (fragment)
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ywords: heterotetramer; immunoglobulin
86/Domain: immunoglobulin homology <IMM>
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Pred. No. 7.2;
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                                            to staphylc
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A;Molecule type: mRNA
A;Residues: 1-109 <HIL>
A;Experimental source: B cell
A;Superfamily: inmunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;7-90/Domain: immunoglobulin homology <IMM>
                                                                                                                                                         A; Title: Nucleotidic sequence analysis of A; Reference number: S34001; MUID:93209281 A; A; Accession: S34013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Accession: PH1669
R;Hillson, J.L.; Karr, N.S.; Oppliger, I.R.; Mannik, M.; Sasso, E.H.
J. Exp. Med. 178, 331-336, 1993
A;Title: The structural basis of germline-encoded VH3 immunoglobulin binding A;Reference number: PH1642; MUID:93301610
A;Accession: PH1669
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Best Local Similarity
"~+~hes 5; Conserva
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C;Date: 30-Jun-1991 #sequence_revision 30-Jun-1991 #text_change 21-Jul-2000
C;Accession: S00476; S34013
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Best Local Similarity
Thehes 5; Conserve
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C; Species: Homo sapiens (man)
C; Date: 24-Feb-1994 #sequence_revision 24-Feb-1994 #text_change 16-Aug-1996
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A;Cross-references: GDB:128528; OMIM:147070 A;Map position: 14q32.33-14q32.33 A;Introns: 16/1
                                                                                                                                                                                                                                                    A;Cross-references: EMBL:X07448; NID:g33104; A;Note: the authors translated the codon AGT R;Mariette, X.; Tsapis, A.; Brouet, J.C.
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A; Residues: 1-110 <HIL>
A; Experimental source: B cell
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                                                                A; Gene: GDB: IGHV@
                                                                                    C; Genetics:
                                                                                                        A; Molecule type: mRNA
A; Residues: 20-116 < MAR>
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EMBO J. 7, 104
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A; Residues: 1-117 < MATS>
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                                                                                                                                                                                                                                                                                                                                                                                                       A; Title: Dispersed localization of D segments in the human immunoglobulin heavy-chain
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                                                                                                                                                                                                                                                                                                                                                                                                                                               Lee, K.H.; Nakai, S.; Sato, T.; Kodaira, M.; Zong, S.Q.; Ohno, H.; Fuk
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83.3%;
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7.5;
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6
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C; Superfamily: immunoglobul.
C; Keywords: ;heterotetramer;
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C:Species: Homo sapiens (man)
C:Species: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 23-Jul-1999
                                                                                         A; Molecule type: mRNA
A; Residues: 1-118 <GRI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Introns: 16/1
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-117/Product: Ig heavy chain V region (VI-2) #status predicted: 34-117/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross references: EMBL:X62106; NID:g37831; PIDN:CAA44016.1; PID:g37832 R;Olee, T.; Lu, E.W.; Huang, D.F.; Soto-Gil, R.W.; Deftos, M.; Kozin, F.; J. Exp. Med. 175, 831-842, 1992
A;Title: Genetic analysis of self-associating immunoglobulin G rheumatoid A;Reference number: $23623; MUID:92158804
A;Accession: $23625
A;Cross-references: EMBL:X59704; NID:g32552; PIDN:CAA42225.1; PID:g32553 C;Genetics:
                                                       A; Cross-references: EMBL: Z18846; NID: g33121; PIDN: CAA79298.1; PID: g939900
                                                                                                                                                                                                                R;Griffiths, A.D.; Malmqvist, M.; Marks, J.D.; Bye, J.M.; Embleton, M.J.; McCafferty, J. EMBO J. 12, 725-734, 1993
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                                                                                                                                           A; Status: preliminary; nucleic acid sequence not shown
                                                                                                                                                                      A; Reference number: S36256; A; Accession: S36265
                                                                                                                                                                                                                                                                                R; Griffiths,
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A; Residues: 1-117 <SHI>
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A;Title: Physical map of the 3' region of the human immunoglobulin heavy chain locus: cla;Reference number: $18551; MUID:92037524
A;Accession: $18551
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Superfamily: immunoglobulin V region; immunoglobulin homology Keywords: heterotetramer; immunoglobulin
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Species: Homo sapiens (man)
ate: 13-Jan-1995 #sequence_revision 06-Jun-1997 #text_change 23-Jul-1999
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nes 5; Conserv
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Pred. No. 8.1;
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Pred. No.
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R;Figini, M.; Marks, J.D.; Winter, G.; Griffiths, A.D.
J. Mol. Biol. 239, 68-78, 1994
A;Title: In vitro assembly of repertoires of antibody chains
A;Reference number: S46390; MUID:94254092
A;Accession: S46393
A;Status: preliminary
Search completed: June 12, 2002, Job time: 300 sec
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                                                                                                                                                                                                                    F;15-98/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                     A;Cross-references: EMBL:Z31680; NID:g509786; PIDN:CAA83485.1; PID:g1335146 C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1-129 <FIG>
                                                                                                                                                                                                                                                                                                                                                                                            C; Accession: S46393
R; Figini, M.; Marks,
                                                                                                                                                                                                                                                                                                                                                                                                                        C;Species: Homo sapiens (man)
C;Date: 27-Jan-1995 #sequence_revision 27-Jan-1995 #text_change 20-Jun-2000
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S46393
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83.3%;
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Pred. No. 8.9;
1; Mismatches
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Pred. No. 8
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GenCore version 4.5 Copyright (c) 1993 - 2000 Comp

Compugen Ltd

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Minimum DB seq length: 0
Maximum DB seq length: 2000000000
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re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.

    protein search, using sw model
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    June 12, 2002, 11:20:05; Search time 49.09 Seconds (without alignments) 2.985 Million cell updates/sec
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/cgn2_6/ptodata/2/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/2/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/BCTUS_COMB.pep:*
/cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*
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          US-08-545-809A-90
US-08-477-899B-94
US-08-477-989B-94
US-08-477-989B-94
US-08-636-936-4
US-08-636-936-4
US-08-635-936-4
US-08-353-400-36
US-08-353-400-36
US-08-353-400-36
US-08-353-400-36
US-08-370-807-2
US-08-355-0219-41
PCT-US-9-370-807-2
US-08-137-117D-102
US-08-137-117D-112
US-08-436-717-102
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Sequence 59, Appl	Sequence 36, Appl	Sequence 22, Appl	Sequence 2, Appli	128		Sequence 2, Appli	Sequence 22, Appl	Sequence 23, Appl	Sequence 3, Appli	Sequence 3, Appli	Sequence 65, Appl	Sequence 65, Appl	Sequence 65, Appl	Sequence 15, Appl	Sequence 5, Appli	Sequence 5, Appli	Sequence 33, Appl

US-08-888-366-8

ALIGNMENTS

#### Sequence 8, Application US/08888366 Patent No. 5972656 GENERAL INFORMATION: CLASSIFICATION: 435 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 08/187,407 FILING DATE: 27-JAN-1994 PRIOR APPLICATION DATA: APPLICATION UNMBER: US 07/990,542 FILING DATE: 14-DEC-1992 PRIOR APPLICATION DATA: TELEFAX: 612-332-9081 INFORMATION FOR SEQ ID NO: REFERENCE/DOCKET NUMBER: 86 TELECOMMUNICATION INFORMATION: TELEPHONE: 612-332-5300 COMPUTER READABLE FORM: MEDIIM TYPE: Flopy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOSTMARE: Patentin Release #1.0, Version CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/888,366 FILING DATE: 03-JUL-1997 APPLICATION NUMBER: US 07/324,392 FILING DATE: 14-MAR-1989 ATTORNEY/AGENT INFORMATION: NAME: Carter, Charles G. APPLICATION NUMBER: US 07/493,299 FILING DATE: 14-MAR-1990 PRIOR APPLICATION DATA: NUMBER OF SEQUENCES: 39 CORRESPONDENCE ADDRESSE: Merchant & Gould STREET: 90 South 7th Street, SEQUENCE CHARACTERISTICS: APPLICANT: Lopez, Osvaldo APPLICANT: Wylie, Dwane E. APPLICANT: Wagner, Fred W. TITLE OF INVENTION: Mercury Binding Polypeptides and Nucleotides Coding Therefo NAME: Carter, Charles G REGISTRATION NUMBER: 35, STREET: 90 South 7 CITY: Minneapolis STATE: MN LENGTH: COUNTRY: UZIP: 55402 : 114 amino acids amino acid USA 03-JUL-1997 N: 435 ID NO: 8: 35,093 8648.39USC1 3100 No. 5972656west Ctr #1

FOPOLOGY:

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US-08-477-877B-94
Sequence 94, Application US/08477877B
PATCHT NO. 5730979
GENERAD INFORMATION:
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TITLE OF INVENTION: SEGMENTS AND DNA FRAGMENTS CONTAINING THE SAME
NUMBER OF SEQUENCES: 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Honjo, Tasuku
APPLICANT: Matsuda, Fumihiko
                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 29,066
REFERENCE/DOCKET NUMBER: 06
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-542-5070
                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 117 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 10-MAY-1993
ATTORNEY/AGENT INFORMATION:
NAME: Freeman, John W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: FILING DATE: 27-MAR-PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OPERATING SYSTEM: Windows95
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
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RESULT 4
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US-08-477-877B-94
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Best Local Similarity
Thes 5; Conserve
                                                                                                                                                                                                                                          Patent No.
                                                                                                                                                                                                                                          Sequence 94, Application US/08472281A Patent No. 5817311
                                                                                                                                                                                                        GENERAL INFORMATION:
APPLICANT: Bazin, Herv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08,
FILING DATE: 07-JUN-1995
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/407
FILING DATE: 29-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 08/119,032
APPLICATION NUMBER: 08/119,032
FILING DATE: 09-SEP-1993
APPLICATION NUMBER: 08/027,008
APPLICATION NUMBER: 08/027,008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 05-MAR-1993
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                   NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                                                                                                                     APPLICANT: Bazin, Herv
APPLICANT: Latinne, Dominique
TITLE OF INVENTION: LO-CD2a Antibody and Uses Thereof for Inhibiting T-Cell Act
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COMPUTER READABLE FORM:
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                                                             STREET: 6 Becke
CITY: Roseland
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                              COUNTRY: U.S.A.
                                                  STATE:
                                                                             ADDRESSEE: Cecchi, Stewart STREET: 6 Becker Farm Road
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Cecchi, Stewart & Olstein
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Novel antibodies and compounds capable of binding interleukin-18 useful for treating, e.g., inflamm		(BADI ) BASF AG.	10-FEB-2000; 2000US-0181608.	09-FEB-2001; 2001WO-US04170.	16-AUG-2001.	WO200158956-A2.	Homo sapiens.	<pre>IL-18; interleukin-18; human; antibody; antirheumatic; cerebroprotecti nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant; immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.</pre>	Anti-IL-18 antibody 2El heavy chain CDR2 fragment	30-NOV-2001 (first entry) "	AAG65300;	T 1 300 AAG65300 standard; protein; 17 AA.	ALIGNMENTS	53 58.2 98 16 53 58.2 102 18	54 59.3 128 17 54 59.3 128 21 54 50.3 128 21	54 59.3 127 21 54 59.3 128 15	54 59.3 122 21 54 59.3 122 21	54 59.3 118 14	54 59.3 117 17	55 60.4 249 18 54 59.3 105 17	55 60.4 245 22	55 60.4 146 18 55 60.4 156 22	55 60.4 128 21 55 60.4 128 21	55 60.4 128 21 55 60.4 128 21	55 60.4 128 21	55 60.4 128 17 55 60 / 128 21	55 60.4 128 17 55 60.4 128 17	55 60.4 128 15 55 60.4 128 15	55 60.4 120 22 55 60.4 128 15	55 60.4 120 18	58 63.7 123 56 61.5 123
binding to human inflammatory disorders,	vsky B, Salfeld J; ock CP, Thompson JE;							atic; cerebroprotective; rkinsonian; cardiant; epatotropic; 2E1.	•					HV1263 VH region. Human immunoglobul	VH region of HIV n Anti-gp120 antibod Anti-gp120 antibod	Anti-HIV gpl20 imm	Human FVIII antibo	B-B10 MAD H chain	Mouse antibody hea	Anti-proenkephalin	Human leukocyte an	Human anti-tumour Heavy chain variab	Anti-gp120 antibod Anti-gp120 antibod	Anti-gp120 antibod	Anti-gp120 antibod	VH region of HIV n	VH region of HIV n	Anti-HIV gp120 imm Anti-HIV gp120 imm	Anti-HIV gp120 imm	Human Ab heavy cha	Monoclonal antibod Anti-adipocyte mon Human immunoglobul

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Best Local
                                                         autoimmune diseases -
                                                                                                                                                                                                                                                                                                           Ghayur T,
Duncan AR,
Example 2; Page 37; 91pp; English
                                                                          Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders, neurological disorders, heart failure, myocardial infarction, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IL-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective; nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant; immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.
                                                                                                                                                                                                N-PSDB; AAH47511.
                                                                                                                                                                                                                          WPI; 2001-550020/61.
                                                                                                                                                                                                                                                                                                                                                                                           (BADI ) BASF AG.
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                                                                                                                                                                                                                                                                                 Lennard SN;
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nes 17; Conserv
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ırst SM,
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4.7e-09;
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Best Local
                                                                                                                                                                                                                             Ghayur T,
                                                                                                                                                                                                                                                                                                                                                                                                                       IL-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective; nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant; immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention provides isolated antibodies, or antigen-binding portions, that are capable of binding to human interleukin-18 (IL-18). The antibodies may be used to inhibit human II-18 activity in, and treat a disorder where II-18 is detrimental in, a human subject suffering from, inflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease, inflammatory bowel disease, and osteoarthritis), neurological disorders (e.g., Huntington's Chorea, Parkinson's disease, Alzheimer's disease, and
                                                                                                                                                         N-PSDB; AAH47511.
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                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
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                                                                                                                                                                                                              Labkovsky B,
Shorrock CP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 113;
                                                                                                                                                                                                                          Salfeld J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                              JE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
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The invention provides isolated antibodies, or antigen-binding portions, that are capable of binding to human interleukin-18 (IL-18). The

inhibit human IL-18

activity in,

and treat a

Example 2; Page 86; 91pp; English.

autoimmune diseases

antibodies

may be used to

Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders, neurological disorders, heart failure, myocardial infarction, and

myocardial infarction, and

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RESULT
AAG65306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 stroke), heart failure, myocardial infarction, autoimmune diseases such as autoimmune hepatitis and autoimmune neutropaenia, and mental disorders (e.g., depression and schizophrenia). Treatment with an anti-II-18 antibody may occur before, concurrent, or after administration of a second agent selected from an antibody, or fragment, capable of binding human II-12, methotrexate, anti-tumor necrosis factor, corticosteroids, cyclosporin, rapamycin, FK506, and non-steroidal anti-inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        disorder where IL-18 is detrimental in, a human subject suffering from, inflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease, inflammatory bowel disease, and osteoarthritis), neurological disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              inflammatory bowel disease, and osteoarthritis), neurological disorder (e.g., Huntington's chorea, Parkinson's disease, Alzheimer's disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IL-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective;
nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant;
immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.
                                                                                The invention provides isolated antibodies, or antigen-binding portithat are capable of binding to human interleukin-18 (IL-18). The antibodies may be used to inhibit human IL-18 activity in, and treat disorder where IL-18 is detrimental in, a human subject suffering frinflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease, inflammatory benefit discrete.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-FEB-2001; 2001WO-US04170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Anti-IL-18 antibody variable region fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAG65306;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAG65306 standard; protein; 17 AA.
                                                                                                                                                                                                                                                                                                                                                                                                          Novel antibodies and compounds capable of binding to haman interleukin-18 useful for treating, e.g., inflammatory disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ghayur T,
Duncan AR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-FEB-2000; 2000US-0181608
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200158956-A2
inflammatory bowel disease, and osteoarthritis), neurological disorders (e.g., Huntington's chorea, Parkinson's disease, Alzheimer's disease, atstroke), heart failure, myocardial infarction, autoimmune diseases such
                                                                                                                                                                                                                                                                                      Claim 29; Page 76; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                neurological disorders, heart failure,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-550020/61.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (BADI ) BASF AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              49
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dixon RW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        113 AA;
                                                                                                                                                                                                                                                                                                                                                   diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Brocklehurst
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
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Pred. No. 3.6e-08;
): Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   M, White
Mankovich
                                                                                                                                                                                                                                                                                                                                                                                   myocardial infarction,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ۲, ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Labkovsky 3,
Shorrock C2,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Salfeld J;
Thompson JE;
                                                                                                                                                                   and treat
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                                                                                                                                                                                                                                portions
                                                                                                                                   from,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               as autoimmune hepatitis and autoimmune neutropaenia, and mental disorders (e.g., depression and schizophrenia). Treatment with an anti-IL-18 antibody may occur before, concurrent, or after administration of a second agent selected from an antibody, or fragment, capable of binding human IL-12, methotrexate, anti-tumor necrosis factor, corticosteroids, cyclosporin, rapamycin, FK506, and non-steroidal anti-inflammatory agents. The present sequence represents an anti-IL-18 antibody variable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ghayur T,
Duncan AR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IL-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective;
nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant;
immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                The invention provides isolated antibodies, or antigen-binding portions, that are capable of binding to human interleakin-18 (IL-18). The antibodies may be used to inhibit human IL-18 activity in, and treat a disorder where IL-18 is detrimental in, a human subject suffering from, inflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease, inflammatory bowel disease, and osteoarthritis), neurological disorders (e.g., Huntington's chorea, Parkinson's disease, Alcheimer's disease, and the control of the c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders, neurological disorders, heart failure, myocardial infarction, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAG65307;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAG65307 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          region fragment.
                                 stroke), heart failure, myocardial infarction, autoimmune diseases such stroke), heart failure, myocardial infarction, autoimmune diseases such as autoimmune hepatitis and autoimmune neutropaenia, and mental disorders (e.g., depression and schizophrenia). Treatment with an anti-IL-18 antibody may occur before, concurrent, or after administration of a second agent selected from an antibody, or fragment, capable of binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-FEB-2000; 2000US-0181608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-FEB-2001; 2001WO-US04170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Anti-IL-18 antibody variable region fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          autoimmune diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (BADI ) BASF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 GRLNPTTGDANFAEKFQ 17
                                                                                                                                                                                                                                                                                                                                                                                                                   29;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                Page 76; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Dixon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dixon RW, Roguska M, White M, Brocklehurst SM, Mankovich J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
      selected from an antibody, or fragment, of methotrexate, anti-tumor necrosis factor,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93.4%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         o.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Labkovsky B,
Shorrock CP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 17;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Salfeld J;
Thompson JE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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RESULT
AAW79228
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      Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                       This represents the amino acid sequence of the light chain variable region of human antibody clone Amu 5-3. This is used to consruct a humanised antibody LO-CD2a. The invention relates to the use of the monoclonal antibody (MAD) LO-CD2a or a humanised or a chimeric version of the LO-CD2a antibody for the inhibition of a T-cell mediated immune response in a patient. The MAD LO-CD2a (produced by hybridoma cell line ATCC HB 11423) can bind to an epitope on the CD2 antigen of the human lymphocytes. The T-cell mediated immune response in a patient can be inhibited by administering the MAD LO-CD2a or an antibody that binds to the same human lymphocyte epitope as LO-CD2a. The method is used for preventing transplant rejection or for treating graft-versus-host disease or for treating autoimmune diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-JUN-1995;
05-MAR-1993;
09-SEP-1993;
                                                   Sequence
                                                                                                                                                                                                                                                                                                                               Inhibition of T-cell mediated immune response with anti-CD2 monoclonal antibody LO-CD2a - used for preventing transplant rejection or for treating graft-versus-host disease or auto-immune
                                                                                                                                                                                                                                                                                        Example 7; Fig 33; 96pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Bazin H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              06-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UYLO-) UNIV CATHOLIQUE LOUVAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US5817311-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Monoclonal antibody; MAb; LO-CD2a; humanised antibody; chimeric; T-cell; immune response; CD2 antigen; graft-versus-host disease; human lymphocyte; transplant rejection; autoimmune disease; Amu 5-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-MAR-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Heavy chain variable region of human Amu 5-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW79228;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW79228 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cyclosporin, rapamycin, FK506, and non-steroidal anti-inflammatory agents. The present sequence represents an anti-IL-18 antibody variable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-DEC-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
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| grlnprtgdagfaekfq 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GRLNPTTGDANFAEKFQ 17
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                                                                                                                                                                                                                                                                                                                                                                                                                                    Latinne D;
                                                   123 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                93US-0119032
95US-0407009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95US-0472281
93US-0027008
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88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  123
   Score 63;
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Pred. No. 5.
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 DB
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 19;
Length 123;
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B δÃ

49 griypgdgdtnyaqkfq

65

1 GRENPTTGDANFAEKFQ 17

RESULT

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RESULT
AAB12168
      Matches
                       Query Match
Best Local :
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                                                                                                                                                    Hepatitis B virus (HBV) is responsible for hepatitis infection in humans, which may progress to liver cirrhosis or cancer. One of HBV's surface antigens is pre-S1. Monoclonal antibodies specific for pre-S1 antigen may efficiently neutralise HBV. The present invention relates to humanised antibodies specific for HBV surface antigen pre-S1. The humanised antibodies are useful for preventing HBV infection and for treating chronic hepatitis B. The Complementarity Determining Regions of mouse pre-S1 antibody KR127 were grafted onto human antibody to produce the humanised antibodies of the present invention. The present sequence the humanised antibodies of the present invention. The present sequence is the business of the present invention.
                                                                                   Sequence
                                                                                                          is the humanised pre-S1 antibody HKR127HC(I) heavy chain variable region (VH). The coding sequence for the present sequence was produced from the coding sequence of the mouse pre-S1 antibody VH sequence (AAA62115).
                                                                                                                                                                                                                                                                                                                                                               Humanized antibody specific for hepatitis B virus surface antigen pre-S1, containing humanized heavy and light chain regions, useful preventing hepatitis B virus (HBV) infection and for treating chron
                                                                                                                                                                                                                                                                                                                      Claim 2; Fig 1; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                       hepatitis B
                                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hong HJ, Ryu CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chimeric -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (KOAD ) KOREA ADV INST SCI & TECHNOLOGY. (GREC ) KOREA GREEN CROSS CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-JUN-2000.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Humanised antibody; HBV surface antigen pre-S1; muhuman; hepatitis B; liver cirrhosis; liver cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Humanised HBV pre-S1 antibody HKR127HC(I) heavy chain variable region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAB12168;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB12168 standard; Protein; 115 AA
                    Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                    2000-400048/34
DB; AAA62118.
      10;
                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10;
                                                                                   115 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-KR00699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98KR-0049663
                  63.7%;
58.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HBV surface antigen pre-S1; mouse;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            58.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 65
                Score 58; DB 21; Pred. No. 0.022;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. 0.0031;
 Mismatches
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                               Length 115;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                               egions, useful for treating chronic
0;
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Gaps
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0;
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AAB12169
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 DEXX
                                                                                                           AAB12172
                                                                                                                            RESULT
                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                           Hepatitis B virus (HBV) is responsible for hepatitis infection in humans, which may progress to liver cirrhosis or cancer. One of HBV's surface antigens is pre-S1. Monoclonal antibodies spec.:fic for pre-S1 antigen may efficiently neutralise HBV. The present invention relates to humanised antibodies specific for HBV surface antigen pre-S1. The humanised antibodies are useful for preventing HBV infection and for treating chronic hepatitis B. The Complementarity Determining Regions of mouse pre-S1 antibody KR127 were grafted onto human antibody to produce the humanised antibodies of the present invention. The present sequence is the humanised pre-S1 antibody HRR127HC(III) heavy chain variable region (VH). The coding sequence for the present sequence was produced from the coding sequence of the mouse pre-S1 antibody VH sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB12169 standard; Protein; 115 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Humanized antibody specific for hepatitis B virus surface antigen pre-S1, containing humanized heavy and light chain regions, useful for preventing hepatitis B virus (HBV) infection and for treating chronic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chimeric - Mus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Humanised antibody; HBV surface antigen pre-S1; moreon human; hepatitis B; liver cirrhosis; liver cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Humanised HBV pre-S1 antibody HKR127HC(III) heavy chain variable region
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                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hepatitis B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; AAA62119
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Humanised HBV pre-S1 antibody HKR127HC(II) heavy chain variable region
                               17-JAN-2001 (first entry)
                                                               AAB12172;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (KOAD ) KOREA ADV INST SCI & TE
(GREC ) KOREA GREEN CROSS CORP.
                                                                                              AAB12172 standard;
                                                                                                                                                                                                                                                                                                                                                  (AAA62115).
                                                                                                                                                                            49
                                                                                                                                                                                                                                                       Local Similarity
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                                                                                                                                                                       griypgdgdtnyaqkfq 65
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                                                                                                                                                                                                                                        10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ryu CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                      115 AA;
                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADV INST SCI & TECHNOLOGY.
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                                                                                            Protein; 115 AA
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                                                                                                                                                                                                                                                     63.7%;
                                                                                                                                                                                                                                                       Score 58; DB 21
Pred. No. 0.022;
                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                         DB 21;
                                                                                                                                                                                                                                                                        Length 115;
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В
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hepatitis B virus (HBV) is responsible for hepatitis infection in humans, which may progress to liver cirrhosis or cancer. One of HBV's surface antigens is pre-S1 Monoclonal antibodies specific for pre-S1 antigen may efficiently neutralise HBV. The present invention relates to humanised antibodies specific for HBV surface antigen pre-S1. The humanised antibodies are useful for preventing HBV infection and for treating chronic hepatitis B. The Complementarity Determining Regions of mouse pre-S1 antibody KR127 were grafted onto human antibody to produce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mouse pre-S1 antibody KR127 were grafted onto human antibody to produce the humanised antibodies of the present invention. The present sequence is the humanised pre-S1 antibody HKR127HC(II) heavy chain variable region (VH). The coding sequence for the present sequence was produced from the coding sequence of the mouse pre-S1 antibody (AAA62115).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Humanized antibody specific for hepatitis B virus surface antigen pre-S1, containing humanized heavy and light chain regions, useful for preventing hepatitis B virus (HBV) infection and for treating chronic
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N-PSDB; AAA62117.
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Chimeric -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Fig 1; 61pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Humanised antibody; HBV surface antigen pre-S1; mouse; human; hepatitis B; liver cirrhosis; liver cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hepatitis B -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hong HJ, Ryu CJ,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-NOV-1999;
                                                                                                                                      Anti-adipocyte monoclonal antibody heavy chain, FAT 106
                                                                                                                                                                                                      AAU02619;
                                                                                                                                                                                                                                  AAU02619 standard; Protein; 118 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                             WO200127279-A1
                                                                                          Antibody; adipocyte; heavy chain; light chain; obesity; fat; heart disease; complementarity determining region; CDR.
                                                                                                                                                                       29-AUG-2001
                                                                                                                                                                                                                                                                                                            49 griypgdgdtnyaqkfq 65
                                                                                                                                                                                                                                                                  10
                                                                                                                                                                                                                                                                                                                                          1 GRINPTTGDANFAEKFQ 17
                                                                                                                                                                                                                                                                                                                                                                            10;
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KOREA GREEN CROSS CORP.
                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        115 AA;
                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                     (first entry)
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58.8%;
                                                                                                                                                                                                                                                                                                                                                                                           Score 58; DB 21
Pred. No. 0.022;
                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                        21;
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19-APR-2001

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Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                              Humanised antibody; IOR-R3; monoclonal antibody; mouse; heavy cariable region; epidermal growth factor receptor; hybridoma; framework; cloning; computer; algorithm; human; immunogenicity; site-directed mutagenesis; T-lymphocyte epitope;
Region
                                          Region
                                                                                                  Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                      Humanised antibody IOR-R3 variable region heavy chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR92992;
                                                                                                                                                                           Mus musculus
                                                                                                                                                                                                                                       complementarity determining region; tertiary structure; point mutation;
                                                                                                                                                                                                                                                                                                                                                                                                                                           18-MAY-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAR92992 standard; Protein; 123 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 167; 182pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            related diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Panel of specific binding members of antibody molecules which bind to whole adipocytes is used in the treatment of obesity and obesity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               49
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                                                                                                                                                                                                                   engineering;
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                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
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/note=
31..35
                                                                                             Location/Qualifiers 11..12
                                               /note=
26..30
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58.8%;
                                                                                                                                                                                                                   protein
                    "Amino acids involved in tertiary structure"
                                                                      "Mutated amino acids"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 58;
Pred. No.
                                                                                                                                                                                                                   engineering; antitumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 22;
0.022;
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                                                                                                                                                                                                                                                                                                                                    heavy chain;
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AAR92990 ID AARS XX

AAR92990 standard;

Protein; 123 AA

RESULT

12

DP PP

49 gginptsggsnfnekfk 65

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Matches
                                        Query Match
Best Local Similarity
                                                                                                                             generally applicable in humanisation of mouse antibodies. The resulting humanised antibodies may be used e.g. as antitumour agents. They retain the antigen recognition of the original antibody, but are not immunogenic in humans.
                                                                                                                                                                                complementarity determining region, canonical structure or Vernier zone are modified to reduce immunogenicity in humans to produce a humanised antibody. This method, which involves the introduction only a few point mutations into T-cell epitope coding regions, is
                                                                                                                                                                                                                                           The sequence represents a humanised mutant form of a heavy chain variable region from monoclonal antibody IOR-83, specific for epidermal growth factor receptor and originally isolated from a mouse hybridoma. The native antibody framework sequence (AAR92990) analysed for T-cell antigenic sequences using a computer algorithm, and compared with human Ig sequences. The human Ig with highest homology (e.g. AAR92991) is isolated, and residues not within a
                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                            Claim 14; Fig 2; 33pp; English.
                                                                                                                                                                                                                                                                                                                                                                                         Identifying interspecies differences in amino acid sequence of Ig T-cell epitopes - by sequence comparison, also humanised antibodies contg. altered T-cell epitopes, retaining antigen specificity but not immunogenicity, esp. for tumour treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1996-130770/14.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-JUN-1994;
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1 GRLNPTTGDANFAEKFQ 17
                            10;
                                                                                                   123 AA;
                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94CU-0000080
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87
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rodriguez RP,
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                                                                                                                                                                                                Identifying interspecies differences in amino acid sequence of Ig
T-cell epitopes - by sequence comparison, also humanised antibodies
contg. altered T-cell epitopes, retaining antigen specificity but
                                                                                                            The sequence represents the heavy chain variable region from monoclonal antibody IOR-R3, specific for epidermal growth factor
                                                                                                                                                          Claim 14; Fig 2; 33pp; English.
                                                                                                                                                                                                                                                                WPI; 1996-130770/14.
                                                                                                                                                                                                                                                                                                                                                     30-JUN-1994;
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                                                                                                                                                                                                                                                                                                                       (IMMU-) CENT IMMUNOLOGIA MOLECULAR.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     T-lymphocyte epitope; complementarity determining region; tertiary structure; point mutation; antibody engineering; protein engineering; humanised antibody; antitumour; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 epidermal growth factor receptor; hybridoma; framework; cloning; computer; algorithm; human; immunogenicity; site-directed mutagenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-MAY-1996 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IOR-R3;
                                                                                                                                                                                       immunogenicity, esp.
    a few
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               monoclonal antibody; mouse; heavy chain;
point mutations into T-cell epitope coding regions,
                                                                                                                                                                                                                                                                                                                                                    94CU-0000080
                                                                                                                                                                                                                                                                                                                                                                                 95EP-0201752.
                                                                                                                                                                                                                                                                                          del Rio CM,
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53..56
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31..35
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75..88
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Predicted T-lymphocyte antigen"
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                                                                                                                                                                                        for tumour treatment
                                                                                                                                                                                                                                                                                           Rodriguez RP,
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                                                                                                      AAU02501-AAU02635, and AAU02641-AAU02748 represent the amino acid sequences of anti-adipocyte monoclonal antibody heavy chain, light chain, and heavy chain complementarity determining regions (CDR) of the invention. The antibodies can be used in the treatment of obesity and obesity related diseases. The antibodies can be used to deliver drugs or pro-drugs directly to the fat mass of an obese patient or the antibody can be used as a therapeutic itself. Antibodies binding specifically to be complement mediated lysis. The antibodies binding specifically to be complement mediated lysis. The antibodies may be labeled with a detectable label such as radiolabel, fluorescent or chemical group and used in methods of diagnosis in human subjects e.g. to determine the presence of adipocyte antigen on the surface of an adipocyte to detect or
                              patients other than undergoing surgery to remove excess for different types of fat deposits can also be produced abdominal fat associated with heart disease.
                                                                             determine the presence or level of adipocytes in a cell or tissue sample. The antibodies can be used as an alternative means of treatment for obese
                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 124-125; 182pp; English
                                                                                                                                                                                                                                                                                                                                                                       related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Edwards
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU02552 standard; Protein; 123 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  generally applicable in humanisation of mouse antibodies. The resulting humanised antibodies may be used e.g. as antitumour agen They retain the antigen recognition of the original antibody, but not immunogenic in humans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-APR-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           heart disease;
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DB; AAS03452.
                                                                                                                                                                                                                                                                                                                                                                     of specific binding members of antibody molecules which bind to addpocytes is used in the treatment of obesity and obesity ed diseases -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Main
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-0158812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complementarity determining region;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         heavy chain; light chain; obesity; ementarity determining region; CDR.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Vaughan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  65
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                              can also be produced e.g. disease.
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RESULT 15
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Best Local :
                                                                                                                                                                                                              chain sequences encoded by novel isolated genes. The genes (AAQ78939-79002) were isolated and cloned from a series of cosmid constructs: Y202; Y103; Y21; Y6;Y24; 3-31; M84; M118 and M131, by PCR amplification using primers AAQ78917-38. The genes are subdivided into families of Vh genes. The fragments cover a region of 800 kb. The DNA fragments were isolated from high molecular weight DNA from human placenta. The DNA was partially digested with TaqI restriction enzyme. The fragments were separated by gel elecrophoresis and 35-45 kb fractions were collected. The fragments were ligated with ClaI-digested cosmid vector DJB81. The ligation products were in vitro packed and infected into E.coli 490A. The fragments were then subcloned by colony hybridisation. The Vh genes and the DNA fragments encoding them are useful in producting human immunoglobulin in mammalian hosts.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Primer; PCR; amplify; human; immunoglobulin; variable; heavy chain;
cosmid; placenta; vector; pJB81; E.coli; mammalian.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA fragment comprising human immunoglobulin Vh genes - for production of human immunoglobulin in mammalian hosts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Honjo T, Matsuda F;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (NISB ) JAPAN TOBACCO INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-MAY-1993;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAR66296;
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                                                                                                                                                                                                                                                                                                                                                                                                                               Protein sequences (AAR66295-51) are novel human immunoglobulin heavy
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 32-33; 130pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; AAQ78940.
                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      49 gwmnpnsgdtgyagkfg 65
                                           68 gwinpnsggtnyagkfg 84
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## ALIGNMENTS

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Ig heavy chain V region (DP-1) - human (fragment)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 21-Jan-2000
C;Accession: S26910
R;Fomlinson, I.M.; Walter, G.; Marks, J.D.; Llewelyn, M.B.; Winter, G.
J. Mol. Biol. 227, 776-798, 1992
A;Title: The repertoire of human germline V(H) sequences reveals about fifty groups o A;Reference number: S26885; MUID:93021117
A;Accession: S26910
                                                                                                            A; Molecule type: DNA
A; Residues: 1-117 (MATS)
A; Cross-references: EMBL: X07448; NID: 933104;
A; Note: the authors translated the codon AGT
R; Mariette, X; Tsapis, A; Brouet, J.C.
Eur. J. Immunol. 23, 846-851, 1993
A; Title: Nucleotidic sequence analysis of the
A; Reference number: S34001; MUID: 93209281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HVHU35
Ity heavy chain precursor V region (V35) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Jun-1991 #sequence_revision 30-Jun-1991 #text_change 21-Jul-2000
C;Accession: $3,013
C;Accession: $0,0456; $3,013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Molecule type: DNA
A;Residues: 1-98 <TON5
A;Residues: 1-98 <TON5
A;Cross-references: EMBL:Z12303; NID:g32847; PIDN:CAA78173.1; PID:g32848
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;15-98/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                  R;Matsuda, F.; Lee, K.H.; Nakai, S.; Sato, T.; Kodaira, M.; Zong, S.Q.; Ohno, H.; Fuk EMBO J. 7, 1047-1051, 1988
A;Tille: Dispersed localization of D segments in the human immunoglobulin heavy-chain
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A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 20-116 < MJ
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A; Accession: S00476
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                                                                                                                                                   variable domains of four human monoclon
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A;Title: Developmentally restricted immunoglobulin heavy chain variable region gene expra, Reference number: A33548; MUID:89345575
A;Accession: D33548
                                                                                                                                                             C; Superfamily: immunoglobulin V region; immunoglobulin homology C; Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                                                           A; Status: preliminary; nucleic acid sequence not shown; not compared with conceptual
                                                                                                                                                                                                                                                                                                                                                                             C;Species: Homo sapiens (man)
C;Date: 17-Jan-1990 #sequence_revision 17-Jan-1990 #text_change 16-Aug-1996
C;Accession: D33548
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A;Map position: 14432.33-14432.33
A;Introns: 16/1
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;1-19,Domain: signal sequence #status predicted <SIG>
F;20-117/Product: Ig heavy chain V region (V35) #status predicted
F;34-117/Domain: immunoglobulin homology <IMM>
                                                                                                                                                F;15-98/Domain:
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A; Residues: 1-123 <KIP>
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Best Local Similarity
"---hes 9; Conserv."
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A; Residues: 1-104 <RAN>
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A; Accession: 569899
A; Status: preliminary; translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Randen, I.; Pascual, V.; Victor, K.; Thompson, K.M.; Forre, O.; Capra, D.J.; Natvig, J
Eur. J. Immunol. 23, 1220-1225, 1993
A;Title: Synovial IgG rheumatoid factors show evidence of an antigen-driven immune response.
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A; Gene: GDB: IGHV@
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                                                              Local Similarity
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58.8%;
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52.9%;
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58.8%;
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                                    Score 58; DB 2;
Pred. No. 0.013;
3; Mismatches
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Pred. No. 0.011;
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Ig heavy chain V region (DP-75) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 22-Nov-1993 #sequence_revision 17-Nov-1995 #text_change 23-Jul-1999
C;Accession: S26938
R;Tomlinson, I.M.; Walter, G.; Marks, J.D.; Llewelyn, M.B.; Winter, G.
J. Mol. Biol. 227, 776-798, 1992
A;Title: The repertoire of human germline V(H) sequences reveals about fifty groups
A;Reference number: S26885; MUID:93021117
A;Accession: S26938
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Keywords: heterotetramer; immunoglobulin F;15-98/Domain: immunoglobulin homology <II
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Experimental source: B cell C; Superfamily: immunoglobulin V region; immunoglobulin homology
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: EMBL:X68782; NID:g56442; PID:g1334294
A;Experimental source: strain DZB
C;Superfamily: immunoglobulin C region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;12-95/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                   S26938
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A; Residues: 1-98 <SCH>
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J. Exp. Med. 176, 427-438, 1992
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A; Residues: 1-288 < DAM>
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submitted to the EMBL Data Library, October 1992
A;Description: Analysis of the rat B cell repertoire: cloning
A;Reference number: S29690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ig heavy chain VDJ region - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 06-Jan-1995 #sequence_revision 30-Jan-1998 #text_change 20-Jun-2000
C;Accession: S29690
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52.9%;
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Gapop 10.0 , Gapext 0.5
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Copyright (c) 1993 - 2000 Comp
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5 mus musculu
7 rickettsia
7 rickettsia
0 mycobacteri
2 bacillus st
2 harpes simp
8 rattus norv
6 drosophila
6 rickettsia
7 mus musculu
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Gilliam A.C., Shen A., Richards J
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15 heavy chain V region TEPC 1017 precursor
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Q921k2 homo sapien
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Q93n39 coxiella bu		rhodoba		Q9vyf3 drosophila		Q9gyz2 schistosoma	Q99mj0 cricetulus	Q922x9 mus musculu	Q99mi9 cricetulus	mus	homo	galei	œ	Q924q3 mus musculu	Q924q8 mus musculu	mus	mus	Q924q6 mus musculu	Q924q7 mus musculu	mus	Q924rl mus musculu	mus	mus	mus	Q91va2 mus musculu	Q924q5 mus musculu	Q924r0 mus musculu	Q924r7 mus musculu

## ALIGNMENTS

RESULT Q9UL89

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QY 1 GRLNPTTGDANFAEKFQ 17	Query Match Best Local Similarity 58.8%; Matches 10; Conservative	) SEQUENCE 116 AA; 12605	-	FT NON_TER 1 1	CMART CMOOLOG		HSSP; P01810; 2FBJ.	EMBL;			-	RA Wu X., Liu B., Van der Merwe P.L.,	RX MEDLINE=98277139; PubMed=9614934;	RP SEQUENCE FROM N.A.		OX NCBI_TaxID=9606;	Mammalia; Eutheria;		_	DE (FRAGMENT).	MYOSIN-REACTIVE	01-DEC-2001 (TrEMBLrel.	01-MAY-2000 (TrEMBLrel.		Q9UL89;	ID 09HI.89 PRELIMINARY:
	Score 53; DB 4; Length 116; Pred. No. 0.3; 3; Mismatches 4; Indels 0; Gaps 0;	MW; C8F9131DE13EA898 CRC64;							87:184-192(1998).		ies in rheumatic carditis and normal	P.L., Kalis N.N., Berney S.M.,	4934;				; Catarrhini; Hominidae; Homo.	; Craniata; Vertebrata; Euteleostomi;			IMMUNOGLOBULIN HEAVY CHAIN VARIABLE REGION	Last annotation update)	Last sequence update)	Created)		PRT: 116 AA.

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"Direct Estimation of Relative Affinity by Flow Cytomety
Affinity Maturation of B Cell Antigen Receptors in Respo
Hydroxy-3-Nitrophenyl)Acetyl (NP).";

Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        V23-D-J-C MU.
Mus musculus (Mouse).
Mus musculus (Mouse).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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0924Q1; Ol-DEC-2001 (TrEMBLrel. 19,
01-DEC-2001 (TrEMBLrel. 19,
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SEQUENCE
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"Direct Estimation of Relative Affinity by Flow Cytometry Reveals Affinity Maturation of B Cell Antigen Receptors in Response to (4-Hydroxy-3-Mitrophenyl)Acetyl (NP).";
Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases.
EMBL, AB069917; BAB63933.1; -.
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01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
01-DEC-2001 (TREMBLRel. 19, Last annotation update)
v23-D-J-C MU PROTEIN (FRAGMENT).
v23-D-J-C MU.
MUS musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae.
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                                                                                                                                                                                                                                                                                    24A265CE4EA4318B CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NO.
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                                                                                                                                                                                                       DB 11;
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                                                                                                                                                                                                     Length 142;
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Best Local
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0921K1;
01-DEC-2001 (TYEMBLTel. 19, C;
01-DEC-2001 (TYEMBLTel. 19, L;
01-DEC-2001 (TYEMBLTEL. 19, L
                                                                                                                                                                                                                                                                                                 NON_TER
NON_TER
SEQUENCE
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01-MAY-2000
01-MAY-2000
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPKUUUUI
Pfam; PF00047; ig; 1.
SM00406; IGV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=98277139; PubMed=9614934; MEDLINE=98277139; PubMed=9614934;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
MYOSIN-REACTIVE IMMUNOGLOBULIN HEAVY CHAIN VARIABLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AF035022; AA HSSP; P01772; 2FB4
                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR003006; Ig_MHC
InterPro; IPR003596; Ig_v
Pfam; PF00047; ig; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q9UL92
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Submitted (AUG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 fetus.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Myosin-reactive autoantibodies in rheumatic carditis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Young D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (FRAGMENT).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                UNKNOWN (PROTEIN FOR MGC:18977).
      49
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 GRLNPTTGDANFAEKFQ 17
GIINPSGGSTSYAQKFQ
                                                             GRLNPTTGDANFAEKFQ
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                                                                                                                              8; Conserv
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8; Conserv
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                                                                                                                                 Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                     AA;
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                                                                                                                                                                                                                                                                                                 124
13580 MW;
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Rodentia;
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                                                                                                                                                                53.8%;
47.1%;
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47.1%;
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                                                                                                                                                                Score 49;
Pred. No.
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Last annotation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 51;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Created)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                     1BAAACBD96ACD2A2 CRC64;
                                                                                                                                 Mismatches
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Result
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB seq length: 0
DB seq length: 2000000000
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91
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Listing first 45 summaries
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Copyright (c) 1993 - 2000 Comp
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /cgn2_6/ptodata/2/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/FCTUS_COMB.pep:*
/cgn2_6/ptodata/2/iaa/PcTUS_COMB.pep:*
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US-08-477-8778-94
US-08-477-989B-94
US-08-497-312-15
US-08-497-312-17
US-08-497-312-17
US-08-560-558E-28
US-09-025-769B-29
US-09-025-769B-59
US-09-025-769B-59
US-08-276-852-53
US-08-276-852-55
US-08-899-575-53
US-08-899-575-53
US-08-899-575-53
US-08-899-575-53
US-08-899-575-55
US-08-899-575-53
US-08-899-575-55
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AT TOMEWERS	7-C03-858-80-5T	US-08-579-940-4	US-08-758-417A-80	US-09-042-353-232	US-08-737-560A-7	PCT-US92-10983-63	PCT-US92-06185-55	US-08-308-865-63	US-08-800-353-55	US-08-096-762-63	US-07-853-408B-63	US-08-645-641-63	US-08-053-131-63	US-07-834-539A-55	PCT-US95-08743-58	US-08-899-575-58	US-08-899-575-58	US-08-276-852-58
octue.	ת	Sequence 4,	Sequence 80,	Sequence 232	Sequence 7,	Sequence 63,	Sequence 55,	Sequence 63,	Sequence 55,	Sequence 63,	Sequence 63,	Sequence 63,	Sequence 63,	Sequence 55,	Sequence 58,	Sequence 58,	Sequence 58,	Sequence 58,
110011	Appli	Appli	Appl	232, App	Appli	Appl	Appl	App1	Appl	App1	Appl	Appl	Appl	Appl	Appl	Appl	Appl	Tddv

US-08-477-877B-94

Sequence 94, Application US/08477877B Patent No. 5730979

#### ; NAME/KEY: US-08-477-877B-94 GENERAL INFORMATION: APPLICANT: Bazin, Herv APPLICANT: Latinne, Dominique TITLE OF INVENTION: LO-CD2a Antibody and Uses Thereof for Inhibiting T-Cell Act NUMBER OF SEQUENCES: 96 TELEFAX: 201-994-1744 INFORMATION FOR SEQ ID NO: STREET: 6 C. STREET: Roseland CITY: Roseland STATE: New Jersey TELECOMMUNICATION INFORMATION: TELEPHONE: 201-994-1700 TELEFAX: 201-994-1744 FILING DATE: 07-JUN-CLASSIFICATION: 424 PRIOR APPLICATION DATA: SOFTWARE: WordPerfect 5.1 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/477,877B FILING DATE: 07-JUN-1995 COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inc FEATURE: FILING DATE: 05-MAR-1993 ATTORNEY/AGENT INFORMATION: CORRESPONDENCE ADDRESS: SEQUENCE CHARACTERISTICS MOLECULE TYPE: APPLICATION NUMBER: 08/407,009 FILING DATE: 29-MAR-1995 APPLICATION NUMBER: 08/119,032 FILING DATE: 09-SEP-1993 APPLICATION NUMBER: 08/027,008 COMPUTER: NAME: Olstein, Elliot REGISTRATION NUMBER: 2 OPERATING SYSTEM: ZIP: 07068 ADDRESSEE: Carella, Byrne, ADDRESSEE: Cecchi, Stewart TOPOLOGY: STRANDEDNESS: REFERENCE/DOCKET NUMBER: LENGTH: amino acid 6 Becker Farm Road 123 amino acids Human Amu 5-3 heavy chain variable region IBM PS/2 linear 08/027,008 05-MAR-1993 polypeptide inch diskette MS-DOS 24,025 61750-146 Bain, Gilfillan, & Olstein

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RESULT
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US-08-472-281A-94
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Best Local Similarity
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FILING DATE: 07-JUN-1995
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/407
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APPLICATION NUMBER: 08/119,032
FILING DATE: 09-SEP-1993
APPLICATION NUMBER: 08/027,008
FILING DATE: 05-MAR-1993
ATTORNEY/AGENT INFORMATION:
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TELEPHONE: 201-994-1700
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APPLICANT: Latinne, Dominique
TITLE OF INVENTION: LO-CD2a Antibody and Uses Thereof for Inhibiting T-Cell Activa
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CORRESPONDENCE ADDRESS:
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                                                                                                                     Local Similarity
                                                                                                                                                                                        NAME/KEY: Human Amu 5-3 heavy chain variable region
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OPERATING SYSTEM:
                                                                     1 GRLNPTTGDANFAEKFQ 17
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58.8%;
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Pred. No. 0.0011;
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RESULT 4
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Sequence 15, Application US/08497312
Patent No. 5712120
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; NAME/KEY:
US-08-477-989B-94
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CLASSIFICATION DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION UMBER: 08/407,009
FILING DATE: 29-MAR-1995
APPLICATION NUMBER: 08/119,032
FILING DATE: 09-SEP-1993
APPLICATION NUMBER: 08/027,008
FILING DATE: 05-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: Olstein, Ellict M.
NAME: Olstein, Ellict M.
NAME: Olstein, Ellict M.
NAME: 01-STON NUMBER: 24,025
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-994-1700
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SOFTWARE: WordPerfect 5.1
CURRENT APPLICATION DATA:
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MEDIUM TYPE: 3.5 inc
COMPUTER: IBM PS/2
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TITLE OF INVENTION:
TITLE OF INVENTION:
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FILING DATE: 07-JUN-1995
CLASSIFICATION: 424
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SOFTWARE: WordPer
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New Jersey
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Kieber-Emmons, Thomas
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58.8%;
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T-Cell Activation and
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Pred. No. 0.0011;
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GENERAL INFORMATION:

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Maximum DB
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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seq length:
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Match Length DB
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Listing first 45 summaries
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Copyright (c) 1993 - 2000 Comp
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# ALIGNMENTS

hypothetical protein b2191 - Escherichia coli (strain K-12)
C;Species: Escherichia coli
C;Date: 12-Sep-1997 #sequence\_revision 17-Sep-1997 #text\_change 08-Oct-1999
C;Accession: E64988

Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland, V.; Riley, M.; Aau, B.; Shao, Y.

E64988

R;Blattner, F.R.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; I.A.; Rose, D.J.; Mau, B.; Shao, Y. Science 277, 1453-1462, 1997

A;Title: The complete genome sequence of Escherichia coli K-12. A;Reference number: A64720; MUID:97426617

A;Accession: E64988

A;Status: preliminary; nucleic acid sequence not shown; translation not shown

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hypothetical protein TP0382 - syphilis spirochete
C:Species: Treponema pallidum subsp. pallidum (syphilis spirochete)
C:Date: 24-Jul-1998 #sequence_revision 24-Jul-1998 #text_change 05-Nov-1999
C:Accession: H71330
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A;Residues: 1-40 <BLATS
A;Cross-references: GB:AE000308; GB:U00096; NID:91788508; PIDN:AAC75251.1; PID:917885
A;Experimental source: strain K-12, substrain MG1655
A;Cross-references: GB:AE001217; GB:AE000520; NID:g3322656; PIDN:AAC65383.1; PID:g332A;Experimental source: strain Nichols C;Genetics: A;Gene: TP0382
                                                                                                                                                                                                                   R;Fraser, C.M.; Norris, S.J.; Weinstock, G.M.; White, O.; Sutton, G.G.; Dodson, F. rson, J.; Khalak, H.; Richardson, D.; Howell, J.K.; Chidambaram, M.; Utterback, T. they, L.; Weidman, J.; Smith, H.O.; Venter, J.C. Science 281, 375-388, 1998
A;Title: Complete genome sequence of Treponema pallidum, the syphilis spirochete. A;Reference number: A71250; MUID:98332770
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                                                                                                               A; Molecule type: DNA
A; Residues: 1-40 <COL>
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Local Similarity 100.0%; Pred. No. 1.6e+02;
Les 4; Conservative 0; Mismatches 0;
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Query Match

Best Local Similarity

100.0%;

Score 20; Pred. No.

DB 2; 1.6e+02;

Length 40;

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R;Tettelin, H.; Saunders, N.J.; Heidelberg, J.; Jeffries, A.C.; Nelson, K.E.; Eisen, Hickey, E.K.; Haft, D.H.; Salzberg, S.L.; White, O.; Fleischmann, R.D.; Dougherty, B ri, H.; Qin, H.; Vamathevan, J.; Gill, J.; Scarlato, V.; Masignani, V.; Pizza, M. Science 287, 1809-1815, 2000
A;Authors: Grandi, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; Rappuoli, R. A; Mithelmann, M.; Marian, M.; Maria
                                                                  A; Reference number: A81000; MUID: 20175755
                                                                                      A;Authors: Grandi, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; Rappuoli, R.; Vel
A;Title: Complete genome sequence of Neisseria meningitidis serogroup B strain MCS8.
                                                                                                                                                                                                                                                                                                                                          hypothetical protein nmB1079 [imported] - Neisseria meningitidis (strain MC58 serogroup c;Species: Neisseria meningitidis C;Date: 31-Mar_2000 #sequence_revision 31-Mar-2000 #text_change 19-Jan-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            H81124
                                                                                                                                                                                                                                                                                                                                  C; Accession: H81124
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submitted to the Protein Sequence Database, August 1997
A;Description: Isolation and Identification of a Second Diuretic Hormone from Tenebrio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: protein A; Residues: 1-47 <SCH>
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C;Date: 10-Oct-1997 #sequence_revision 10-Oct-1997 #text_change 26-Feb-1998
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A;Title: A new family of cellular proteins related to snake venom disintegrins
A;Reference number: A53476; MUID:94195820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cellular disintegrin-related protein 16-1 - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 15-Mar-1996 #sequence_revision 15-Mar-1996 #text_change 05-Nov-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              34 KEGA 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
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                                                                              of Neisseria meningitidis serogroup B strain MC58.
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Pred. No. 1.7e+02;
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A;Cross-references: EMBL:X97918; PIDN:CAA66511.1
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A;Molecule type: DNA
A;Residues: 1-54 <ALO>
                                                                                                                                                                                                                                                             A;Title: The complete nucleotide sequence and functional organization of Bacillus sub A;Reference number: 222137; MUID:98094274 A;Accession: T42357
                                                                                                                                                                                                                                                                                                                            R;Alonso, J.C.; Luder, G.; Stiege, A.C.; Chai, S.; Weise, F.; Trautner, T.A. Gene 204, 201-212, 1997
                                                                                                                                                                                                                                                                                                                                                                                 C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 11-May-2000
                                                                                                                                                                                                                                                                                                                                                                             C; Accession: T42357
                                                                                                                                                                                                                                                                                                                                                                                                                   C; Species: phage SPP1
                                                                                                                                                                                                                                                                                                                                                                                                                                    hypothetical protein - phage SPP1
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A;Experimental source: ATCC 13048
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, December 1993
C;Superfamily: Escherichia coli conserved yjjx protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-54 <ARV>
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C;Species: Enterobacter aerogenes
C;Date: 07-May-1998 #sequence_revision 15-May-1998 #text_change 08-Oct-1999
C;Accession: S45255
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A; Accession: S45255
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                                                                                                    Query Match
Best Local
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A; Status: preliminary
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C;Species: phage SPP1
C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 08-Oct-1999
C;Accession: JN0739; S21437
C;Accession: JN0739; S21437
R;Chai, S.; Szepan, U.; Lueder, G.; Trautner, T.A.; Alonso, J.C.
Gene 129, 41-49, 1993
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JN0739
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C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 11-May-2000
C;Accession: JN0741; T42359; S21439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Cross-references: EMBL: X65941; NID: g14843; PIDN: CAA46752.1; PID: g579086
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A; Residues: 1-57 < CHA>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gene 129, 41-49, 1993
A;Title: Sequence analysis of the left end of the Bacillus subtilis bacteriophage SPP1
A;Reference number: JN0729; MUID:93328123
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                                                                                                        hypothetical protein [imported] - Yersinia pestis
C;Species: Yersinia pestis
C;Date: 17-Mar-2000 #sequence_revision 17-Mar-2000 #text_change 17-Mar-2000
C;Accession: T47055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Title: The complete nucleotide sequence and functional organization of Bacillus subtil A; Reference number: z22137; MUID: 98094274
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A; Residues: 1-60 < CHA>
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                                   R; Buchrieser, C.; Rusniok, C.; Couve, E.; Franger submitted to the EMBL Data Library, October 1998 A; Description: DNA sequence of the 102 kbases un
                                                                                                                                                                                                                                                                                                                                     Qγ
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A; Reference number: 224348
A; Accession: T47055
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bidues: 1-60 <ALO>
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                                                                                     Rusniok, C.; Couve, E.; Frangeul, L.; Billault, A.; Kunst, F.;
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hypothetical protein 50
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Pred. No. 2.2e+02;
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Pred. No.
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Trautner, T.A.
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    A;Cross-references:
A;Experimental source
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A;Status: preliminary; translated from GB/EMBL/DDBJ A;Molecule type: DNA A;Residues: 1-61 <BUC> A;Cross-references: EMBL:AL031866; PIDN:CAA21398.1 A;Experimental source: strain 6/69
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A;Residues: 1-63 <KUTS
A;Residues: 1-64 <KUTS
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A;Title: The complete sequence of the 1,683-kb pSymB megaplasmid from the N2-fixing A;Reference number: A95842; MUID:21396508; PMID:11481431
A;Accession: C95851
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Authors: Kahn, D.; Kahn, M.L.; Kalman, S.; Keating, D.H.; Kiss, E.; Komp, C. hebault, P.; Vandenbol, M.; Vorholter, F.J.; Weidner, S.; Wells, D.H.; Wong, K. A;Title: The composite genome of the legume symbiont Sinorhizobium meliloti. A;Reference number: A96039; MUID:21368234; PMID:11474104
                                                                                                                                                                                                                                                                                                                                                                                     C;Species: Thermotoga maritima
C;Date: 11-Jun-1999 #sequence_revision i1-Jun-1999 #text_change 21-Jul-2000
C;Accession: A72368
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                                                                                                           A;Title: Evidence for lateral gene transfer between Archaea A;Reference number: A72200; MUID:99287316 A;Accession: A72368
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A; Molecule type: DNA
A; Residues: 1-65 <ARN>
                                                                      A; Status: preliminary
                                                                                                                                                                                                                                Nature 399, 323-329, 1999
                                                                                                                                                                                                                                                                                                               Garrett, M.M.; Stewart,
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N.A.; Fisher, R.
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K.; Yeh,
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source:

strain MSB8

GB:AE001727; GB:AE000512; NID:g4981015; PIDN:AAD35592.1; PID:g498

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C;Genetics:
                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-67 < KUR>
                                                                                                                                                                                                                                                                                                                                                                                         A;Authors: Loftus, B.J.; Yang, F.; Smith, H.O.; Venter, J.C.; Dougherty, B.A.; Morrison A;Title: Complete Genome Sequence of a virulent isolate of Streptococcus pneumoniae. A;Reference number: A95000; MUID:21357209; PMID:11463916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ettelin, H.; Nelson, K.E.; Paulsen, I.T.; Eisen, J.A.; Read, T.D.; Peterson, S.; Hei
J.D.; Umayam, L.A.; White, O.; Salzberg, S.L.; Lewis, M.R.; Radune, D.; Holtzapple,
nson, T.; Hickey, E.K.; Holt, I.E.
Science 293, 498-506, 2001
                                                                                                                                                                                                                      A; Gene:
                                                                                                                                                                                                                                                                                                                                                                                  A; Reference number: A95000; A; Accession: E95210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Species: Streptococcus pneumoniae
C;Date: 03-Aug-2001 #sequence_revision 03-Aug-2001 #text_change 03-Aug-2001
C:Accession: E95210
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A;Experimental source: ATCC 23355
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, December 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 hypothetical protein SP1805 [imported] - Streptococcus pneumoniae (strain TIGR4)
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A; Residues: 1-67 <ARV>
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A;Status: nucleic acid sequence not shown; translation not shown
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A; Gene: TM0507
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Arvidson, D.N.; Arvidson, C.G.; Lawson, C.L.; Miner, J.; Adams, C.; Youderian, P.
leic Acids Res. 22, 1821-1829, 1994
litle: The tryptophan repressor sequence is highly conserved among the Enterobacteriac;
Reference number: S45254; MUID:94268903
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Date: 07-May-1998 #sequence_revision 15-May-1998 #text_change 08-Oct-1999
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Search completed: June 12, 2002, 11:25:37 Job time: 302 sec
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A; Residues: 1-67 < TET>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Tettelin, H.; Saunders, N.J.; Heidelberg, J.; Jeffries, A.C.; Nelson, K.E.; Eisen, Hickey, E.K.; Haft, D.H.; Salzberg, S.L.; White, O.; Fleischmann, R.D.; Dougherty, B. ri, H.; Qin, H.; Vamathevan, J.; Gill, J.; Scarlato, V.; Masignani, V.; Pizza, M. Science 287, 1809-1815, 2000
A;Authbors: Grandi, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; Rappuoli, R.; A;Title: Complete genome sequence of Neisseria meningitidis serogroup B strain MC58. A;Reference number: A81000; MUID:20175755
A;Accession: A81189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hypothetical protein NMB0519 [imported] - Neisseria meningitidis (strain MC58 serogro C;Species: Neisseria meningitidis C;Species: Neisseria meningitidis C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 19-Jan-2001 C;Accession: A81189
                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: GB:AE002408; GB:AE002098; NID:g7225740; PIDN:AAF40951.1; PID:g722
A;Experimental source: serogroup B, strain MC58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Status: preliminary
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OM protein - protein search, using sw model
June 12, 2002, 11:39:13; Search time 29.47 Seconds (without alignments) 5.255 Million cell updates/sec
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Copyright (c) 1993 - 2000 Compugen Ltd.
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Title: Perfect score: US-09-780-035-11 20 1 KEGA 4

Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched: 105224 seqs, 38719550 residues

number of hits satisfying chosen parameters:

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : SwissProt\_40:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

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ore 20; DB ed. No. 56; Mismatches	ALIGNMENTS  PRT; 40 AA.  d) equence update) nnotation update) irochaetaceae; Tra irochaetaceae; Tra irochaetaceae; Tra E.K., Clayton R., E.K., Clayton R., McLeod M.P., Salzi Well J.K., Chidam man C., Cotton M.I K., Sandusky M.,  Treponema pallid ITreponema pallid III is pro of Bicinformatic Institute. There its not removed agreement (See ht isbrsib.ch).  IB7486D9597CCC90	ARCFU ECOLI PHANI PHANI LUMRU LUMRU SOYBN STRPY BAPP22 BAPP22 BRAOL
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                                   Hypothetical protein.
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        SEQUENCE
                                                                                   InterPro; IPR002786; DUF84.
ProDom; PD016591; DUF84; 1.
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                                                                                                                                                                                                                                         modified and this statement is not removed. Usage by an entitles requires a linear --
                                                                                                                                            EMBL; L26582; AAC36893.1; -.
                                                                                                                                                                                                  or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                      Nucleic Acids Res. 22:1821-1829(1994).
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InterPro; IPR003621; Diurtc_hormn.
Pfam; PF00473; CRF; 1.
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SMART; SM00039; CRF; 1.
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Peptides 19:619-626(1998)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=98283334; PubMed=9622015;
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Diuretic hormone II (DH II) (Diuretic peptide II) (DP II) (DH(47)).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         34 KEGA 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4;
        54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               47 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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     AA;
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  5794 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5030 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
                                                                                                                 DUF84.
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23A9E94ED9FA0FC5 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 20; DB Pred. No. 66;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 1; Length 47;
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Best Local Similarity
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Best Local
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MEDLINE=94268903; PubMed=8208606; Arvidson D.N., Arvidson C.L., Miner J., Adams C.,
                                                                                                                                                                                                                                                                        01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation updat
                                                                SEQUENCE FROM N.A.
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PHNS_DESVH
Q06173;
01-FEB-1995
                                                                                                                      NCBI_TaxID=550;
                                                                                                                                                     Enterobacter
                                                                                                                                                                           Bacteria; Proteobacteria;
                                                                                                                                                                                                       Enterobacter cloacae.
                                                                                                                                                                                                                                                             Hypothetical
                                                                                                                                                                                                                                                                                                                                                                        P39431;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Site-directed mutagenesis of the hydrogenase signal peptide consensus box prevents export of a beta-lactamase fusion protein.", J. Gen. Microbiol. 138:2173-2183(1992).
                                                                                                                                                                                                                                                                                                                                                                                              YJJX_ENTCL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A., AND MUTAGENESIS OF ARG-28 MEDLINE=93123973; PubMed=1479348;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
01-FEB-1995 (Rel. 31, Last annotation update)
01-FEB-1995 (Rel. 31, Last annotation update)
Periplasmic [NiFe] hydrogenase small subunit precursor (EC 1.18.99.1)
(NiFe hydrogenlyase small chain) (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -!- COFACTOR: BINDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Desulfovibrio vulgaris (strain Hildenborough)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DESVH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Niviere V., Wong S.L., Voordouw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bacteria; Proteobacteria; delta subdivision; Desulfovibrio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=882;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBCELLULAR LOCATION: Periplasmic.
MISCELLANEOUS: [FE], [NIFE], AND [NIFESE REPRESENT THREE DISTINCT ENZYMES HAVING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COFACTOR: BINDS TWO 4FE-4S CLUSTERS AND ONE 3FE-4S CLUSTER SUBUNIT: HTTERODIMER OF A LARGE AND A SMALL SUBUNIT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATALYTIC ACTIVITY: 2 reduced ferredoxin + 2 H(+) = 2 oxidized
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUBCELLULAR LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ferredoxin + H(2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEGA 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEGA 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4;
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                                                                                                                                                                                                                                                       protein in trpR 3'region (Fragment)
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                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Periplasmic;
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                                                                                                                                                                        gamma
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         E865200656D8A9DC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Iron-sulfur; 4Fe-4S;
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 20;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R->E: COMPLETELY INHIBITED EXPORT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROCESSING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBUNIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PERIPLASMIC [NIFE] HYDROGENASE SMALL
                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 20; DB
Pred. No. 75;
                                                                                                                                                                      subdivision;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                , AND [NIFESE] HYDROGENASES APPEAR TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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                                                                                                                                                                                                                                                                                   update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 1; Length 55
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HYDROGENASE ACTIVITY
                                                                                                                                                                      Enterobacteriaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FUSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3Fe-4S; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                   Database :
                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                           Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Run on:
                                                                                                                                                                                                                                                                                                                                                                                                          number of hits satisfying chosen parameters:
   SPTREMBL_19:*

1: sp_archea:*
2: sp_bacteria:*
3: sp_fung!:*
4: sp_human:*
5: sp_invertebrate
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_vortebrate
13: sp_vertebrate
14: sp_urlassifit
15: sp_archeap:*
17: sp_archeap:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-780-035-11
20
1 KEGA 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  June 12, 2002, 11:38:38; Search time 107.95 Seconds (without alignments) 6.410 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                         562222 seqs, 172994929 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sp_rodent:*
sp_virus:*
sp_vertebrate:*
sp_unclassified:*
sp_rvirus:*
sp_bacteriap:*
sp_archeap:*
                                                                                                                           sp_organelle:*
sp_phage:*
                                                                                                                                                                                        sp_invertebrate:*
                                                                                                                                                                                                                                                                                                                                                                                                               562222
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

16	15	14	13	12	11	10	9	8	7	6	رب ر	4	ω	2	ם	Result No.
20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	Score
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100:0	100.0	100.0	100.0	100.0	100.0	100.0	Query Match Length
67	67	66	65	64	64	63	61	60	57	54	52	40	37	34	27	ength DB
16	16	16	16	7	7	16	2	9	9	9	16	16	11	13	4	1
Q97P39	Q9K0R1	Q99XV5	Q9WYX7	Q30820	Q30816	Q92X87	Q9X9G5	Q38080	Q38078	048497	Q9JZF4	P76451	055073	Q9PTK8	Q9BS88	ID
Q97p39 streptococc	Q9k0rl neisseria m	Q99xv5 streptococc	Q9wyx7 thermotoga	Q30820 ovis aries	Q30816 ovis aries	Q92x87 rhizobium m	(29x9g5 yersinia ps	Q38080 bacteriopha	Q38078 bacteriopha	048497 bacteriopha	Q9jzf4 neisseria m	P76451 escherichia		Q9ptk8 brachydanio	09bs88 homo sapien	Description

117 118 119 119 119 119 119 119 119 119 119	
20 1000 20 1000	
000000000000000000000000000000000000000	
71174 711774 7174 7174 7174 7174 883 885 887 887 888 888 888 888 888 888 889 90 90 90 90 90 90 90 90 90 90 90 90 90	
116 116 116 116 116 116 117 117 117 117	
Q16278 Q9ERR8 Q9BR36 Q9PLH0 Q9PLH0 Q9SS26 Q9SS26 Q9SS26 Q9SS27 Q98N27 Q98N27 Q98N25 Q92ZC5	
Q16278 homo sapien Q98dr8 bacillus ha Q98r35 mycoplasma Q98lh0 chlamydia m Q40539 nicotiana t Q55222 mycobacteri Q55222 mycobacteri Q9826 ancylostoma Q91217 streptomyce Q98027 sulfolobus Q9ewn5 streptomyce Q98027 sulfolobus Q9exn5 streptomyce Q98027 gallus gall Q92f28 yersinia pe Q9524 escherichia Q92f28 gallus gall Q92f26 gallus gall Q92f27 gallus gall Q92f25 rhizobium m Q92f35 listeria in Q92f35 callithrix Q94f15 arabidopsis Q34282 yersinia pe Q4255 arabidopsis Q34282 yersinia pe Q4255 arabidopsis Q4483 pseudomonas Q973v1 sulfolobus P94757 escherichia Q44480 anabaena va Q07989 saccharcmyc Q94404 homo sapien Q31261 rattus norv	

# ALIGNMENTS

RESULT Q9PTK8 ID Q AC Q DT 0 DT 0 DT 0 DT 0 CO	Query Best Matcl Matcl	RESULT OPERATE
K8  K99PTK8 PRELIMINARY; PRT; 34 AA.  Q9PTK8,  Q1-MAY-2000 (TrEMBLrel. 13, Created)  Q1-MAY-2001 (TrEMBLrel. 13, Last sequence update)  Q1-DEC-2001 (TrEMBLrel. 19, Last annotation update)  REGGIE2 (FRAGMENT).  FLOT1 OR REGGIE2.	Query Match 100.0%; Score 20; DB 4; Length 27; Best Local Similarity 100.0%; Pred. No. 2.2e+02; Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 1 KEGA 4 1 1  16 KEGA 19	O9BS88 PRELIMINARY; PRT; 27 AA. O9BS88; O1-JUN-2001 (TIEMBLIEL. 17, Created) O1-JUN-2001 (TIEMBLIEL. 17, Last sequence update) O1-JUN-2001 (TIEMBLIEL. 17, Last sequence update) O1-DEC-2001 (TIEMBLIEL. 19, Last annotation update) SIMILAR TO CHAPERONIN CONTAINING TCP1, SUBUNIT 8 (THETA). HOMO Sapiens (Human). Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. NCBI_TaxID=9606; [1] SEQUENCE FROM N.A. TISSUE=BRAIN, PRIMITIVE NEUROECTODERMAL; Strausberg R.; STRAUSDERG (MAR-2001) to the EMBL/GenBank/DDBJ databases. EMBL; BC005220; AAH05220.1; SEQUENCE 27 AA; 2894 MW; 430CB0FB04967B0E CRC64;

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P76451;
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O1-FEB-1997 (TrEMBLrel. 02, Created)
O1-FEB-1997 (TrEMBLrel. 02, Last sequence update)
O1-DEC-2001 (TrEMBLrel. 19, Last annotation update)
O1-DEC-2001 (TrEMBLrel. 19, Last annotation update)
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055073;
01-JUN-1998 (TrEMBLrel 0
01-JUN-1998 (TrEMBLrel 0
01-DEC-2001 (TrEMBLrel 1
                                                                                                                                                                                                                                                                                                 Kraus P., Just W., Vogel W.;
"mDcn Intron 2 (XbaI) to Intron 3 (HincII).";
Submitted (FEB-1998) to the EMBL/GenBank/DDBJ
EMBL; AF047708; AAÇ04271.1; -.
                                                                                                                                                                                                                                                                              InterPro; IPR001611; LRR. Pfam; PF00560; LRR; 1.
                                                                                                                                                                                                                                                SEQUENCE
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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"A contig map of the Mhc class I genomic
reveals ancient synteny."
J. Immunol. 164:5296-5305(2000).
EMBL; AF182161; AAF20177.1;
EMBL; 2DB-GENE-000210-36; flot1.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Ostariophysi
Cypriniformes; Cyprinidae; Danio.
NCBI_TaxID-7955;
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Pred. No.
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Q9JZF4;
01-OCT-2000
01-OCT-2000
01-DEC-2001
  048497
                                                                                                                                                                                                                                                         Tettelin H., Saunders N.J., Heidelberg J., Jeffries A.C., Nelson K.E. Elsen J.A., Ketchum K.A., Hood D.W., Peden J.F., Dodson R.J., Nelson W.C., Gwinn M.L., DeBoy R., Peterson J.D., Hickey E.K., Haft D.H., Salzberg S.L., White O., Fleischmann R.D., Dougherty B.A., Mason T., Ciecko A., Parksey D.S., Blair E., Cittone H., Clark E.B., Cotton M.D., Utterback T.R., Khouri H., Qin H., Vamathevan J., Gill J., Scarlato V., Masignani V., Pizza M., Grandi G., Sun L., Smith H.O., Fraser C.M., Moxon E.R., Rappuoli R., Venter J.C., "Complete genome sequence of Neisseria meningitidis serogroup B strain Mc58.";
                                                                                                                                                                                       Hypothetical protein; Complete proteome. SEQUENCE 52 AA; 6013 MW; 383F49EEB5A94FAE CRC64;
                                                                                                                                                                                                                              Science 287:1809-1815(2000).
EMBL; AE002458; AAF41472.1; -.
                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
STRAIN=WC58 / SEROGROUP B;
MEDLINE=20175755; PubMed=10710307;
                                                                                                                                                                                                                   TIGR; NMB1079; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "The complete genome sequence of Escherichia coli K-12."; Science 277:1453-1474(1997).
EMBL; AE000308; AAC73251.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bacteria; Proteobacteria;
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STRAIN-K12 / Mc1655;
MEDLINE-97426617; PubMed-9278503;
MEDLINE-97426617; PubMed-9278503;
Blattner F.R., Plubkett G. III, Bloch C.A., Perna N.T., Burland V.,
Blattner F.R., Collado-Vides J., Glasner J.D., Rode C.K., Mayhew G.F.,
Gregor J., Davis N.W., Kirkpatrick H.A., Goeden M.A., Rose D.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=491;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Neisseria meningitidis (serogroup B).
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Pred. No. 4.3e+02;
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Query Match Length DB	₽B	ID	Description
1	20	100.0	4	22	AAG65301	Anti-IL-18 antibod
N	20	100.0	9	22	AAG99520	PRAME derived HLA-
ω	20	100.0	10	22	AAG99418	PRAME derived HLA-
4	20	100.0	10	22	AAG83449	Arabidopsis thalia
5	20	100.0	12	18	AAW25324	Peptide clone LacI
6	20	100.0	18	22	ABB39285	Peptide #6791 enco
7	20	100.0	18	22	AAM59953	Human brain expres
8	20	100.0	18	22	AAM72552	Human bone marrow
9	20	100.0	18	22	AAM32792	Peptide #6829 enco
10	20	100.0	20	22	AAB55823	PL peptide #34. S
11	20	100.0	20	22	AAB57685	CC CKR-2 PL peptid

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Protein #6924 enco	ABB24925	22	49	100.0	20	42
Peptide #8190 enco	ABB40684	22	49	٠	20	41
ന	AAY30879	20	47	•	20	40
Peptide #5753 enco	AAM31716	22	46	•	20	39
	AAM19077	22	46	•	20	
O	AAM71428	22	46	•	20	37
Human brain expres	AAM58906	22	46		20	
	ABB23464	22	46		20	
	ABB38283	22	46		20	
#420	ABB36694	22	46	•	20	
uman	ABG10958	22	45		20	32
	ABG28104	22	41	•	20	ப
secre	AAY02730	20	39	•	20	30
·Plasmodium knowlse	AAR87205	16	39	100.0	20	29
Non-EPOR-binding c	AAY42833	20	38	•	20	28
Polypeptide fragme	AAY01202	20	37	•	20	27
T. ferrooxidans ty	AAY77861	21	36	•	20	26
Novel human diagno	ABG21965	22	34	•	20	25
Peptide #7707 enco	AAM33670	22	ယ	•	20	24
Human bone marrow	AAM73472	22	ω 3	100.0	20	23
Peptide #5397 enco	AAM31360	22	30	100.0	20	22
v	AAM71083	22	30	•	20	21
Human brain expres	AAM58582	22	30		20	20
Protein #5197 enco	ABB23198	22	30	•	20	19
	ABB37950	22	30	100.0	20	18
æ	ABB50871	22	29	•	20	17
Ω.	AAG99550	22	27	100.0	20	16
	AAG99548	22	27	•	20	15
Human 5' EST secre	AAY12805	20	25	0	20	14
ligand-bi	AAU00937	22	23	100.0	20	13
CC CKR-2 PL peptid	AAB58095	22	20	100.0	20	12

# ALIGNMENTS

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RESULT
AAG65301
ID AAG6
XX
XX
AAG6
XX
AAG6
XX
DT 30-N
XX
DE Anti
XX
IL-1
KW noot
KW inmn
XX
WO20
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HOME
PN WO20
XX
II-1
PPF 09-H
XX
XX
II-1
PFF 09-H
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III-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Anti-IL-18 antibody 2El heavy chain CDR3 fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-NOV-2001 (first entry)
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IL-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective; nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant; immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.

Homo sapiens.

WO200158956-A2

16-AUG-2001.

09-FEB-2001; 2001WO-US04170

10-FEB-2000; 2000US-0181608

(BADI ) BASF AG.

Ghayur T, Duncan AR, Lennard SN; Dixon RW, Roguska M, White M, Brocklehurst SM, Mankovich J, Labkovsky B, Shorrock CP, Salfeld J; Thompson JE;

WPI; 2001-550020/61.

Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders,

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PF XXX PF
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The present invention describes a method of producing T cell epitopes, involving subjecting a precursor peptide to the action of a 20S proteasome, in order to locate the C-terminus of said epitope. This ca
                                                                                                                                                                                                               Selecting and/or producing a T cell epitope useful in a vaccine comprises subjecting a precursor peptide or polypeptide to the action of a 20S proteasome to determine the location of the C-terminus -
                                                                                                                                                               Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-427158/46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (UYLE-) RIJKSUNIV LEIDEN (SCIS-) SCI SEED CAPITAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-JAN-2000; 2000EP-0200242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EP1118860-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRAME derived HLA-A*0201 binding peptide SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cancer; infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vaccine; immune response; T cell response; epitope;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-OCT-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      inflammatory bowel disease, and osteoarthritis), neurological disease, and stroke), heart failure, myocardial infarction, autoimmune disease, and as autoimmune hepatitis and autoimmune neutropeenia, and mental disorders (e.g., depression and schizophrenia). Treatment with an anti-IL-18 second agent selected from an antibody, or fragment, capable of binding human IL-12, methotrexate, anti-tumor necrosis factor, corticosteroids, cyclosporin, rapamycin, FK566, and non-steroidal anti-inflammatory and reserve the present selected from the selected from the selected from the selected from an antibody, or fragment, capable of binding cyclosporin, rapamycin, FK566, and non-steroidal anti-inflammatory.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAG99520;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAG99520 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention provides isolated antibodies, or antigen-binding portions, that are capable of binding to human interleukin-18 (IL-18). The antibodies may be used to inhibit human IL-18 activity in, and treat a disorder where IL-18 is detrimental in, a human subject suffering from,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      chain CDR3 fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 25; Page 37; 91pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      neurological disorders, heart failure, myocardial infarction, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              inflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       autoimmune diseases
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                                                                                                                                                    Page 77; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000EP-0200242.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Offringa R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 20; 100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             English.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Melief CJM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ဖ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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Query Match

Local Similarity

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DB 22; 89; hes 0;

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Best Local
                                          The present invention describes a method of producing T cell epitopes, involving subjecting a precursor peptide to the action of a 20S proteasome, in order to locate the C-terminus of said epitope. This can be used in the production of vaccines, which can then be used to provoke a T cell response in the treatment of diseases such as cancer and
Sequence
                       infections. The present sequence is a peptide described in the exemplification of the invention.
                                                                                                                                                     Selecting and/or producing a T cell epitope useful in a vaccine comprises subjecting a precursor peptide or polypeptide to the action of a 20S proteasome to determine the location of the C-terminus -
                                                                                                                             Disclosure; Page 40; 102pp; English.
                                                                                                                                                                                                                WPI; 2001-427158/46
                                       infections.
                                                                                                                                                                                                                                           Ossendorp F,
                                                                                                                                                                                                                                                                  (UYLE-) RIJKSUNIV LEIDEN.
(SCIS-) SCI SEED CAPITAL INVESTMENTS BV
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                                                                                                                                                                                                                                                                                                                                                                                                                      Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Vaccine; immune response; T cell response; epitope; proteasome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRAME derived HLA-A*0201 binding peptide SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-OCT-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAG99418 standard; Peptide; 10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               be used in the production of vaccines, which can then be used to provoke a T cell response in the treatment of diseases such as cancer and infections. The present sequence is a peptide described in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
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AA;
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                                                                                                                                                                                                                                          Offringa R,
                   the invention
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                                                                                                                                                                                                                                       Melief CJM, Kessler JH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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Pred. No. 6.4e+05;
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OM protein - protein search, using sw model
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Searched:
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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1.990 Million cell updates/sec
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Gapop 10.0 ,
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/cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/2/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/2/iaa/backfiles1.pep:*
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  Gapext 0.5
                  US-08-548-540-162
PCT-US96-09809-162
US-07-952-853-17
US-08-914-848-17
US-08-467-023-261
US-09-227-357-230
US-09-261-855-17
US-08-916-165A-338
US-08-913-477-11
US-08-913-477-11
US-08-913-477-21
US-08-913-477-21
US-08-913-477-21
US-08-913-477-21
US-08-915-27-2
US-08-915-27-2
US-08-915-28-5-2
US-08-913-477-21
US-08-913-477-21
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US-08-913-477-21
US-08-913-477-21
US-08-913-477-21
US-08-913-477-21
US-08-913-478-35-2
US-09-382-155-21
US-09-382-155-21
US-09-382-155-21
US-09-91-946A-21
US-09-91-946A-21
US-09-91-946B-1
PCT-US93-03035-2
US-08-928-213B-13
US-09-485-885-10
US-09-485-885-10
US-09-485-885-10
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Sequence 17, Appl
Commence 17, Appl
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Sequence 162, App
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Sequence 230, App
                          Sequence
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e 2, Appli
e 3, Appli
e 65, Appli
e 12, Appli
e 12, Appli
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4, Appli
338, App
523, App
11, Appl
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US-09-352-990-28	PCT-US95-00476-2	US-09-091-405-2	US-08-446-669-2	US-08-450-393A-2	US-09-390-326-12	US-09-390-326-9	US-08-813-591-2	US-09-500-651-2	US-09-318-448-21	US-07-941-523-24	PCT-US91-02207-2	US-09-042-785A-9	US-08-292-549-2	US-09-462-844-4	US-09-234-613-12	US-08-933-750C-12	US-09-390-326-5
Sequence 28, Appl	2	Sequence 2, Appli	Sequence 2, Appli	Sequence 2, Appli	Sequence 12, Appl	Sequence 9, Appli	Sequence 2, Appli	Sequence 2, Appli	Sequence 21, Appl	Sequence 24, Appl	Sequence 2, Appli	Sequence 9, Appli	Sequence 2, Appl1	Sequence 4, Appli	Sequence 12, Appl	Sequence 12, Appl	Sequence 5, Appli

## ALIGNMENTS

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RESULT 1
US-08-548-540-162
; TOPOLOGY: 1; MOLECULE TYPE: US-08-548-540-162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 162, Application US/08548540 Patent No. 5733731
                                                                                                                                                                                                                                                                   SOFTMARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/548,540
FILING DATE: 26-OCT-1995
CLASSIFICATION: 435
PRIOR APPLICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/290,641
FILING DATE: 15-AGG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/963,321
FILING DATE: 15-OCT-1992
ATTORNEY/AGENT INFORMATION:
NAME: Smith, William M.
REGISTRATION NUMBER: 30,223
REGISTRATION NUMBER: 30,223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                          TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-326-2400
TELEPAX: 415-326-2422
INFORMATION FOR SEQ ID NO: 162:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Schatz, Peter J.
APPLICANT: Cull, Millard G.
APPLICANT: Miller, Jeff F.
APPLICANT: Stemmer, Willem P.C.
APPLICANT: Gates, Christian M.
TITLE OF INVENTION: Peptide Library and Screening Method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 94105
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 12 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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ZIP: 94105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: William M. Smith STREET: One Market Plaza, Steuart
                                                                  STRANDEDNESS:
                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                San Francisco
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RESULT \3
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                                                                                                                   Matches
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GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO: 162:
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                                                                                                                                                                                                  TOPOLOGY: 1i
                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: Smith, William M.
                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 16
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-326-2400
                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 08/290,641 FILING DATE: 15-AUG-1994 PRIOR APPLICATION NUMBER: US 07/963,321 APPLICATION NUMBER: US 07/963,321
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Miller, Jeff F.
APPLICANT: Stemmer, Willem P.C.
APPLICANT: Gates, Christian M.
TITLE OF INVENTION: Peptide Library and Screening Method
NUMBER OF SEQUENCES: 162
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
FILING DATE: 26-OCT-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
APPLICATION NUMBER: PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                               Local Similarity
                                                                                                                                                                                                                             TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER:
                                                                                                                                                                                                                                                           LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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California
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                                                                                                                Conservative
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                                                                                                                                                                                                              linear
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Pred. No.
                                                                                                                                        Score 20;
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RESULT 4
US-08-914-848-17
; Sequence 17, Application US/08914848
; Patent No. 5989887
; Patent No. 5989887
                                                                                                                                                                                                                                                                                                                                 ; ORGANISM: US-07-952-853-17
                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                            GENERAL INFORMATION:
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                                             APPLICANT:
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    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                             HYPOTHETICAL: N
FRAGMENT TYPE:
ORIGINAL SOURCE:
                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 24
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-813-5600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Murashige, Kate H.
REGISTRATION NUMBER: 29,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO) CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
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TELEFAX: 706141
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US
FILING DATE: 19921125
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: MORKLOUN L
ADDRESSEE: 755 Page Mill Road
                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE: California
ZIP: 94304-1018
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20 amino acids
Harder, Abraham
De Graaff, Leendert H.
                             Coutel, Yves
                                                                                                                                                                                                                                                     Conservative
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                                             Van Heuvel, Margaretha
Bakhuis, Janna G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Andreoli, Peter M.
/ENTION: CLONING AND EXPRESSION OF DNA
/ENTION: MOLECULES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Visser, Jacob
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Flipphi, Michel J. 1
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Bakhuis, Janna G.
                                                                                                                                                                                                                                                                                                                                              Aspergillus niger
                                                                                                                                                                                                                                                                                                                                                                                                                           linear
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                                                                                                                                                                                                                                                                                                                                                                             internal
                                                                                                                                                                                                                                                                                                                                                                                                       peptide
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                                                                                                                                                                                                                                                                  Score 20; DB Pred. No. 53;
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                                                                                                                                                                                                                                                  0;
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd

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OM protein - protein search, using sw model
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                          Score
 4444455644
344444644
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1: /SIDS1/gcgdata/h
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64
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first 45 summaries
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AAG65353
AAG65353
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AAW15528
AAG62935
AAG62945
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AAW15559
                                                                                                                                                                                                                                                                                    SUMMARIES
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Amino acid sequenc
Amino acid sequenc
TGF beta-1/TGF bet
Anti-adipocyte mon
Anti-HTV Fab tat10
                                                                                                             Anti-IL-18 antibod
Anti-IL-18 antibod
Anti-IL-18 antibod
Anti-IL-18 antibod
Anti-TGF beta-2 sc
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AAW97650 AAW97650 AAY95216 ABG13492 AAR820572 AAR82091 AAW95489 AAG93606 AAG93607 AAU02531 AAW69092 AAW951194 AAW95215 AAW95215 AAW95215 AAW95215 AAW952165 AAY95179 AAY95185 AAG62937 AAG62937 AAG62937 AAG62937 AAG62939 AAW19884 AAW15525 AAW15525	AAW08740 AAW21746 AAW48894 AAW52864 AAW55610 AAW48893 AAW4889387 AAB09387 AAB09387
ybean SUG1 poly ti-platelet gl; ti-platelet gl; ti-platelet gl; vel human derived lig man derived lig man anti-Rh(D) man anti-Rh(D) man anti-HIV Fab tat; man eli-HIV Fab tat; man anti-HIV Fab tat; lino acid sequenti-platelet gl; ti-platelet gl; ti-platel	Human anti-HIV Fab E3330-binding prot Homo sapiens AP en Apurinic/apyrimidi Human prostate can Homo sapiens MGMT- Hepatitis GB virus Hepatitis GB virus H, pylori GHPO 110

## ALIGNMENTS

# RESULT AAG65302 ш

AAG65302 standard; protein; 11 AA

AAG65302;

30-NOV-2001 (first entry)

Anti-IL-18 antibody 2El light chain CDR1 fragment.

IL-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective; nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant; immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.

Homo sapiens.

WO200158956-A2

16-AUG-2001.

09-FEB-2001; 2001WO-US04170.

10-FEB-2000; 2000US-0181608

(BADI ) BASF AG.

ACC NO CONTRACTOR NA CONTRACTO Ghayur T, Duncan AR, Lennard SN; Dixon RW, Ros , Brocklehurst Roguska SM, Mankovich 'nΆ Labkovsky B, Shorrock CP, Salfeld J; Thompson JE;

WPI; 2001-550020/61.

Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders,

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Qγ
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                                         Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders, neurological disorders, heart failure, myocardial infarction, and
Example 2; Page 38; 91pp; English
                                                                                                                    N-PSDB; AAH47512
                                                                                                                                                                                                   Ghayur T,
                                                                                                                                                                                                                                                               10-FEB-2000; 2000US-0181608
                                                                                                                                                                                                                                                                                                09-FEB-2001; 2001WO-US04170
                                                                                                                                                                  Lennard SN;
                                                                                                                                                                                    Duncan AR,
                                                                                                                                                                                                                                  (BADI ) BASF AG.
                                                                                                                                                                                                                                                                                                                                  16-AUG-2001.
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                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                   IL-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective; nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant; immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (e.g., Huntington's Chorea, Parkinson's disease, Alzheimer's disease, and stroke), heart failure, myocardial infarction, autoimmune diseases such as autoimmune hepatitis and autoimmune neutropaenia, and mental disorders (e.g., depression and schizophrenia). Treatment with an anti-IL-18 antibody may occur before, concurrent, or after administration of a second agent selected from an antibody, or fragment, capable of binding human IL-12, methotrexate, anti-tumor necrosis factor, corticosteroids, cyclosporin, rapamycin, FK506, and non-steroidal anti-inflammatory agents. The present sequence represents an anti-IL-18 antibody 2E1 light
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Anti-IL-18 antibody 2E1 light chain sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAG65309;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention provides isolated antibodies, or antigen-binding portions, that are capable of binding to human interleukin-18 (IL-18). The antibodies may be used to inhibit human IL-18 activity in, and treat a disorder where IL-18 is detrimental in, a human subject suffering from, inflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            inflammatory bowel disease, and osteoarthritis), neurological disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 27; Page 38; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       neurological disorders, heart failure, myocardial infarction, and autoimmune diseases -  \\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity hes 11; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 QGDSLRHFYPN 11
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                                    diseases
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                                                                                                                                                                                Brocklehurst SM,
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Pred. No. 1.8e-05;
0; Mismatches 0;
                                                                                                                                                                                M, White
Mankovich
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                                                                                                                                                                    Labkovsky B,
Shorrock CP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 11;
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                                                                                                                                                                           Salteld J;
Thompson JE;
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RESULT
AAG65353
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Best Local
                                                                                                                                                                         Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disneurological disorders, heart failure, myocardial infarctine
                                                                                                                                                                                                                                                                                           WPI; 2001-550020/61
N-PSDB; AAH47512.
                                                                                                Example 2; Page 88; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                         Ghayur T, Dixon RW,
Duncan AR, Brocklehu
                                                                                                                                                              autoimmune diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-FEB-2000; 2000US-0181608
                                                                                                                                                                                                                                                                                                                                                                                Lennard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (BADI ) BASF AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-FEB-2001; 2001WO-US04170
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              stroke), heart failure, myocardial infarction, autoimmune diseases such as autoimmune hepatitis and autoimmune neutropaenia, and mental disorders (e.g., depression and schizophrenia). Treatment with an anti-IL-18 antibody may occur before, concurrent, or after administration of a second agent selected from an antibody, or fragment, capable of binding human IL-12, methotrexate, anti-tumor necrosis factor, corticosteroids, cyclosporin, rapamycin, FK506, and non-steroidal anti-inflammatory agents. The present sequence represents an anti-IL-18 antibody 2E1 light chain segments.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         II-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective;
nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Anti-IL-18 antibody 2E1 light chain sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAG65353;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chain sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein; 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                 Roguska M, White M, rst SM, Mankovich J,
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Pred. No.
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Shorrock CP,
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Thompson JE;
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The invention provides isolated antibodies, or antigen-binding portions, that are capable of binding to human interleukin-18 (IL-18). The antibodies may be used to inhibit human IL-18 activity in, and treat a

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RESULT
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   inflammatory bowel disease, and osteoarthritis), neurological disorders (e.g., Huntington's chorea, Parkinson's disease, Alzheimer's disease, and stroke), heart failure, myocardial infarction, autoimmune diseases such as autoimmune hepatitis and autoimmune neutropaenia, and mental disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              disorder where IL-18 is detrimental in, a human subject suffering from, inflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease,
            The invention provides isolated antibodies, or antigen-binding portions, that are capable of binding to human interleukin-18 (IL-18). The antibodies may be used to inhibit human IL-18 activity in, and treat a disorder where IL-18 is detrimental in, a human subject suffering from, inflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease, inflammatory bowel disease, and osteoarthritis), neurological disorders (e.g., Huntington's chorea, Parkinson's disease, Alzheimer's disease, an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 chain sequence.
                                                                                                                                                                                                                           Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders, neurological disorders, heart failure, myocardial infarction, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-FEB-2001; 2001WO-US04170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IL-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective;
nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant;
immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAG65305;
                                                                                                                                                                        Claim 29;
                                                                                                                                                                                                                                                                                                            WPI;
                                                                                                                                                                                                                                                                                                                                                                     Duncan AR,
                                                                                                                                                                                                                                                                                                                                                                                       Ghayur T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-FEB-2000; 2000US-0181608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200158956-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Anti-IL-18 antibody variable region fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAG65305 standard;
                                                                                                                                                                                                                                                                                                                                                Lennard
                                                                                                                                                                                                                                                                                                                                                                                                                         (BADI ) BASF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 QGDSLRHFYPN 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
                                                                                                                                                                                                                                                                                                            2001-550020/61.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qgdslrhfypn 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11;
                                                                                                                                                                                                                                                                                                                                                  SN;
heart failure, myocardial infarction, autoimmune diseases
                                                                                                                                                                      Page 75;
                                                                                                                                                                                                                                                                                                                                                                                       Dixon RW,
                                                                                                                                                                                                              diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             109 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                     Brocklehurst
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein; 11
                                                                                                                                                                        91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                       Roguska
                                                                                                                                                                                                                                                                                                                                                                       MS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      represents an anti-IL-18 antibody 2E1 light
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 64; DB 22;
Pred. No. 0.00021;
                                                                                                                                                                                                                                                                                                                                                                     M, White
Mankovich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                     , ,
                                                                                                                                                                                                                                                                                                                                                                     Labkovsky B,
Shorrock CP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                     Salfeld J;
Thompson J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                         JE;
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ΧX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW15528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         as autoimmune hepatitis and autoimmune neutropaenia, and mental disorder (e.g., depression and schizophrenia). Treatment with an anti-IL-18 antibody may occur before, concurrent, or after administration of a second agent selected from an antibody, or fragment, capable of binding human IL-12, methotrexate, anti-tumor necrosis factor, corticosteroids, cyclosporin, rapamycin, FK506, and non-steroidal anti-inflammatory agents. The present sequence represents an anti-IL-18 antibody variable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Transforming growth factor beta-2; TGF-beta-2; human; antibody engineering; scFv; phage display; Intibosis arterial injury; proliferative retinopathy; retinal deta adult respiratory distress syndrome; liver cirrhosis; post myocardial infarction, post-angioplasty restenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rheumatoid arthritis; macrophae macrophage pathogen infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        scleroderma; vascular didease; cataract; glaucoma; scarring; glomerulonephritis; osteoporosis; immune disease; inflammation; rheumatoid arthritis; macrophage deficiency disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Anti-TGF beta-2 scFv antibody 14F12 VL domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW15528,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW15528 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              region fragment.
                                                                     Claim 5; Fig
                                                                                                             Agent conty. antigen-binding domain of human antibody to transforming growth factor beta 1 or 2 - and nucleic acid encoding it, used to neutralise effects of TGF, e.g. for control of fibrosi
                                                                                                                                                                        N-PSDB; AAT60375
                                                                                                                                                                                                                                                                                                      06-OCT-1995;
                                                                                                                                                                                                                                                                                                                    19-JAN-1996;
                                                                                                                                                                                                                                                                                                                                                 07-OCT-1996;
                                                                                                                                                                                                                                                                                                                                                                            23-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                    Chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-NOV-1997
                                                                                                                                                                                      WPI; 1997-215360/20.
                                                                                                                                                                                                                   Wilton AJ;
                                                                                                                                                                                                                                              Bacon L,
                                                                                                                                                                                                                                                                           (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
                                                                                                                                                                                                                               rempest PR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 QGDSLRHFYPN 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 qgdslrhfysn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ഗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10;
                                                                                                  and inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens; synthetic.
                                                                                                                                                                                                                                               Green JA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                     2b(v); 184pp; English
                                                                                                                                                                                                                                  Thompson
                                                                                                                                                                                                                                                                                                      96GB-0001081.
95GB-0020486.
                                                                                                                                                                                                                                                                                                                                                  96GB-0020920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           87.5%;
90.9%;
                                                                                                                                                                                                                                Jackson RH, in JE, Vaughan
                                                                                                    disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 56; DB 22;
Pred. No. 0.00056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                therapy; chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                   Johnson KS, Po
n TJ, Williams
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  shuffling
                                                                                                                                                                                                                                                 Pope AR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 fibrosis;
                                                                                                                   control of fibrosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     detachment;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and mental disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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This polypeptide sequence comprises the VL domain of human scFv antibody 14F12, which is specific for transforming growth factor (TGF) beta-2. It is encoded by a gene (AAT60375) isolated from a light chain shuffle repertoire of a peripheral blood lymphocyte

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RESULT
AAG62935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C library. The antigen-binding domains of human antibodies (see C AAW15522-40) to TGF beta-1 and/or beta-2 can be used to counter the C adverse effects of TGF beta, such as (i) promotion of fibrosis (in C dermal, ocular or keloid scarring, lung fibrosis, arterial injury, C distress syndrome, liver cirrhosis, post myocardial infarction, C cost-angioplasty restenosis, scleroderma, vascular disorders, C cataract, glaucoma, or esp. neural scarring and glomerulonephritis, C clase (not claimed) osteoporosis), or (ii) immune and inflammatory C diseases (e.g. rheumatoid arthritis, macrophage deficiency diseases (cor macrophage pathogen infection). Nucleic acids encoding human cantibody VH and VL can be used for prodn, of recombinant antigen-constants (pref. less than 5 nM) and low IC50s for neutralisation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            atches
                                                                                                              The present sequence represents an antibody variable light chain (VL) fragment. The fragment is used to produce a mixture or panel of 5 different specific binding members, each comprising an antibody VH and/or VL variable domain and capable, when displayed on the surface of filamentous bacteriophage particles or in the case of a specific withdram machar communication the surface of the surface
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mixture or panel of antibodies for selecting specific binding members that cross the blood brain barrier, for use in delivering different molecules and treating neurological diseases
                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 92; 109pp; English.
                                                                                                     binding member
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB; AAH42379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Webster C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Antibody; light chain; VL; amyloid protein; blood brain barrier; endothelial cell; brain cell antigen; inflammation; adhesion molecule; transferrin receptor; neurological disease; Alzheimer's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27-NOV-2000; 2000WO-GB04501.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200144300-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Amino acid sequence of variable light chain fragment of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAG62935;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAG62935 standard; Protein; 108 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 QGDSLRHFYPN 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001-398131/42
                      brain
to human serum amyloid protein, to pass through a mammalian brain barrier (BBB). The panel is useful for the selection of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qgdslrnyyan 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Osbourn J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             107 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                      comprising the D5 VH and/or VL variable domain when
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99US-0170599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AIDS-related dementia; epilepsy; brain injury
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      71.9%;
72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ward
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ν,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 46;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Miller K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 18;
0.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          clone G67.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
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the selection of

are useful

in diagnosis,

prophylaxis

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RESULT
AAG62945
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
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        The present sequence represents an antibody variable light chain (VL) fragment. The fragment is used to produce a mixture or panel of 5 different specific binding members, each comprising an antibody VH and/or VL variable domain and capable, when displayed on the surface of filamentous bacteriophage particles or in the case of a specific binding member comprising the D5 VH and/or VL variable domain when bound to human serum amyloid protein, to pass through a mammalian blood brain barrier (BBB). The panel is useful for the selection of specific binding members with a desired property such as ability to cross BBB, ability to bind endotthelial cells or other brain cell antigen, ability to bind areas of inflammation in the brain or BBB breakdown or ability to bind intracellular adhesion molecules and to bind transferring the panel of the pane
                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Page 97; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mixture or panel of antibodies for selecting specific binding members that cross the blood brain barrier, for use in delivering different
                                                                                                                                                                                                                                                                                                                                                                                                                                    molecules and treating neurological
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB; AAH42389.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-398131/42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Webster C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Antibody; light chain; VL; amyloid protein; blood brain barrier;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          specific binding members with a desired property such as ability to cross BBB, ability to bind endothelial cells or other brain cell antigen, ability to bind areas of inflammation in the brain or BBB breakdown or ability to bind intracellular adhesion molecules and to bind transferrin receptor. The antibodies are useful in diagnosis, prophylaxis and treatment of human or animal body, including neurological diseases, such as Alzheimer's disease, prion disease, AIDS-related dementia, epilepsy and traumatic brain injury and any diseases involving inflammation occurring within the brain or central nervous system.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-DEC-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        endothelial cell; brain cell antigen; inflammation; adhesion mol
transferrin receptor; neurological disease; Alzheimer's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Amino acid sequence of variable light chain fragment of clone G79.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAG62945 standard; Protein; 108 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              108 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AIDS-related dementia; epilepsy; brain injury.
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72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ward G, Miller
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 44;
Pred. No. 1
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          fragment. The fragment is used to produce a mixture or panel of 5 different specific binding members, each comprising an antibody VH cc different specific binding members, each comprising an antibody VH condition of filamentous bacteriophage particles or in the case of a specific binding member comprising the D5 VH and/or VL variable domain when the condition of the particles of the case of a specific bound to human serum amyloid profesin, to pass through a mammalian composition of the particles of the selection of the specific binding members with a desired property such as ability to bind areas of inflammation in the brain or EBB breakdown or cability to bind areas of inflammation in the brain or EBB breakdown or cability to bind intracellular adhesion molecules and to bind transferrin receptor. The antibodies are useful in diagnosis, prophylaxis and creceptor. The antibodies are useful in diagnosis, prophylaxis and creceptor is disease, prion disease, AIDS-related dementia, epilepsy cand traumatic brain injury and any diseases involving inflammation occurring within the brain or central nervous system.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Antibody; light chain; VL; amyloid protein; blood brain barrier; endothelial cell; brain cell antigen; inflammation; adhesion molecule; transferrin receptor; neurological disease; Alzheimer's disease; prion disease; AIDS-related dementia; epilepsy; brain injury.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Amino acid sequence of variable light chain fragment of clone G101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-OCT-2001 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 105; 109pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Webster C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
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                                                                                                                                                                                                                                                                                                                                                                                                  Mixture or panel of antibodies for selecting specific binding members that cross the blood brain barrier, for use in delivering different molecules and treating neurological diseases
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Osbourn J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-GB04501.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-0170599
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Pred. No.
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             scleroderma; vascular didease; cataract; glaucoma; scarring; glomerulonephritis; osteoporosis; immune disease; inflammation; rheumatoid arthritis; macrophage deficiency disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Transforming growth factor beta; TGF-beta; human; antibody engineering; scFv; phage display; lung fibrosis; arterial injury; proliferative retinopathy; retinal detachment; adult respiratory distress syndrome; liver cirrhosis; post myocardial infarction; post-angioplasty restenosis; post myocardial infarction; post-angioplasty restenosis;
                        This polypeptide comprises the VL domain of human scFv antibody vT37, which is cross-reactive with transforming growth factor (TGF) beta-2 and TGF beta-1. It is encoded by a gene (AAT60423) isolated from an scFv repertoire by phage display and soluble ELISA. The dissociation constant of the scFv is 4 nM for TGF beta-1 and 7 nM for TGF beta-2. VT37 does not bind to IGF beta-3. The antigens binding domains of human antibodies (see also AAM15522-40) to TGF beta-1 and/or beta-2 are useful in the treatment of fibrotic and immune or inflammatory diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGF beta-1/TGF beta-2 cross-reaactive antibody VT37 VL domain.
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06-OCT-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GB2305921-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                macrophage pathogen infection; therapy.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                    Example 1; Fig 4; 184pp; English.
                                                                                                                                                                                                                  Agent contg. antigen-binding domain of human antibody to transforming growth factor beta 1 or 2 - and nucleic acid encoding it, used to neutralise effects of TGF, e.g. for control of fibrosis, immune and inflammatory disease
                                                                                                                                                                                                                                                                                               N-PSDB; AAT60423.
                                                                                                                                                                                                                                                                                                                  WPI; 1997-215360/20.
                                                                                                                                                                                                                                                                                                                                                                                Bacon L,
                                                                                                                                                                                                                                                                                                                                                                                                            (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
 Sequence
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   109 AA;
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95GB-0020486.
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72.7%;
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                                                                                                                                                                                                                                                                                                                                                                 Vaughan TJ, Williams
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Pred. No. 1.2;
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                                                                                                                                                                                                                                                                                                                                                                                   Johnson KS,
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cc sequences of anti-adipocyte monoclonal antibody heavy chain, light CC invention. The antibodies can be used in the treatment of obesity and obesity related diseases. The antibodies can be used to the fat mass of an obese patient or the antibody CC adipocytes can be used to activate the immune system to destroy the cells CC by complement mediated lysis. The antibodies binding specifically to CC by complement mediated lysis. The antibodies may be labeled with a CC used in methods of diagnosis in human subjects e.g. to determine the presence or level of adipocytes an be used to activate the immune system to destroy the cells CC determine the presence or level of adipocytes in a cell or tissue sample. The antibodies may be labeled with a CC used in methods of diagnosis in human subjects e.g. to determine the presence or level of adipocytes in a cell or tissue sample. The antibodies can be used as an alternative means of treatment for obese CC patients other than undergoing surgery to remove excess fat. Antibodies abdominal fat associated with heart disease.
                                                                                                                                        Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; Page 96-97; 182pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Panel of specific binding members of antibody molecules which bind to whole adipocytes is used in the treatment of obesity and obesity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Edwards BM, Main SH,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAU02504;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU02504 standard; Protein; 109 AA
                                                     1 QGDSLRHFYPN 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23 qgdslrsyytn 33
qgdslrsyytn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 QGDSLRHFYPN 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001-282031/29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAMBRIDGE ANTIBODY TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
8; Conser
                                                                                                                                                                                                                                             109 AA;
                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99US-0158812.
                                                                                                                             68.8%;
72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vaughan TJ;
                                                                                                                          Score 44; I
Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. 1.2;
                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                        DB 22;
1.2;
                                                                                                                                                 Length 109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2;
                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                     RESULT 11
ADAR6900
XX AAR6900
XX AAR6900
XX AAR6900
XX AAR6900
XX AAR6900
XX HIV-1;
XW HIV-1;
XW HIV-1;
XW Fab; al
XX Fegion
FT Region
F
        Дb
                                                                                                               Matches
                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                               A phagemid library was constructed using lymphocyte RNA from a long-term asymptomatic HIV-1 positive donor. Heavy and light chain genes were cloned and a combinatorial library was prepared and screened to select antigen (HIV rev or tat) binders. Human soluble anti-HIV Fabs were obtained. Heavy chain VH sequences are given in AAR69084-87, light chain VL in AAR69088-92 and light chain
                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 11; Page 32-33; Table 2; 62pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Method for conducting gene therapy - comprises using recombinant gene encoding antibody binding antigen associated with a disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     useful for providing cell immunity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1995-082039/11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (UYJE-) UNIV JEFFERSON THOMAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-JUL-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-FEB-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W09503832-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HIV-1; human immunodeficiency virus type 1; AIDS; Tat protein; intracellular immunization; gene therapy; single chain antibody; Fab; antibody engineering; resistance; cell immunity.
21 qgdslryhyan 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Anti-HIV Fab tat104(VL4).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-AUG-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR69091 standard; Protein; 109 AA.
                                               1 QGDSLRHFYPN 11
                                                                                                                                      Local
                                                                                                          Similarity
8; Conserv
                                                                                                                                                                                                                                          109 AA;
                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93US-0099870.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94WO-US08448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /label= CDR3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /label= CDR2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /label= FR2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /label= FR1
                                                                                                                             67.28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDRI
                                                                                                                             Score 43; Pred. No.
                                                                                                    Mismatches
                                                                                                                          1.9;
                                                                                                                                                    DB 16;
                                                                                                                                              Length 109;
                                                                                                                                                                                                                                                                                                        and light chain
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23./\*

Matches

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21 qgdslryhyan

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RESULT 1
AAW08740
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                                       Query Match
Best Local
                           Matches
                                                                                                                        The present sequence is a human anti-HIV Fab light chain VL sequence. A novel gene therapy method has been produced, where a recombinant (rec) gene is introduced into the cells of a mammal. The method is improved by using a rec gene encoding an antibody (Ab) (e.g. the present sequence) that is selectively specific for an intracellular (IC) antigen associated with a disease. The method is used to prevent or halt the progress of a disease by IC immunisation. Specifically, the Ab can be used to inhibit the replication of a virus, such as human T-cell leukaemia virus or especially HIV-1, or of other pathogens, e.g. bacteria, fungi. The method provides immunity before or after the development of the disease and can be used to control the
                                                                                                                                                                                                                                                                                                  Improved gene therapy using recombinant gene coding for an antibody
- for intracellular immunisation against pathogens recognised by th
antibody, esp. human immunodeficiency virus HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human anti-HIV Fab amino acid sequence tat104(VL4).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW08740;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW08740 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                 23-MAY-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HIV;
                                                                                                                                                                                                                                                                             Example 11; Page 59; 213pp; English.
                                                                                                                                                                                                                                                                                                                                                                              Duan L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9637234-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Region
                                                                                                                                                                                                                                                                                                                                                                                                       (UYJE-) UNIV JEFFERSON THOMAS.
                                                                                       Sequence
                                                                                                                severity of the disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12
                                       Local Similarity
  H
                                                                                                                                                                                                                                                                                                                                                        1997-020948/02.
  QGDSLRHFYPN 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Immunodeficiency Virus Type-1
                                                                                                                                                                                                                                                                                                                                                                                 Pomerantz RJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T-cell leukaemia virus.
                                                                                         109 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antibody; immunisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                  95US-0447610
                                                                                                                                                                                                                                                                                                                                                                                                                                                          96WO-US07393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label= FR3
86..98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /label= CDR3
99..109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /label= FR2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /label= CDR1
32..46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /label= FR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /label- CDR2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FR4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               109
                                       Score 43; DB Pred. No. 1.9;
                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human immunodeficiency virus;
                                                   18;
                           2,
                                                   Length 109;
                             Indels
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AAW48894
ID AAW4
XX
AC AAW4
XX
AC 13-C
XX
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                                                                                                 RESULT
                                                                                                                                                                                                Matches
                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                          3-[(5-(2,3-dimethoxy-6-methyl-1,4-benzoquinonyl)]-2-nonyl-2-propionic acid. This sequence was isolated using the method of the invention. The method of the invention is for isolating a substance (S1) that can adhere to a substance (S2) possessing physiological activity from a mixture containing S1. The method comprises contacting the mixture with a microsphere prepared by coupling S2 to a styrene-glycidyl methacrylate polymer through a spacer. The process is useful, e.g., for recovery of drug binding factors (such as proteins) from cell extracts. The process allows easy isolation, purification and identification of receptors to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Isolation and identification of receptors to specific compounds using microspheres prepared by coupling the compound, via a spacer, to a styrene-glycidyl methacrylate polymer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1997-387634/36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         06-AUG-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         styrene-glycidyl methacrylate polymer; protein isolation; protein purification; receptor identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      E3330-binding protein; Ref-1; microsphere; drug binding factor recovery;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E3330-binding protein, Ref-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW21746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW21746 standard; protein; 318 AA.
                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                             specific
                                                                                                                                                                                                                                                                                                                                                                                                                             This sequence represents the E3330-binding protein, Ref-1. E3330 is 3-[(5-(2,3-dimethoxy-6-methyl-1,4-benzoquinonyl)]-2-nonyl-2-propionic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 5; Page 11; 29pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Handa H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-FEB-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-SEP-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-FEB-1997;
                13-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (KAWA/)
                                            AAW48894;
                                                                      AAW48894 standard;
                                                                                                                                         251 dsfrhlypn 259
                                                                                                 14
                                                                                                                                                                     3 DSLRHFYPN 11
                                                                                                                                                                                                Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HANDA H.
KAWAGUCHI H.
                                                                                                                                                                                                                                                                                              compounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kawaguchi H;
                                                                                                                                                                                                                                                                     318 AA;
                                                                                                                                                                                                 Conservative
                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      96JP-0266711.
96JP-0018827.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97EP-0101821.
                                                                        Protein;
                                                                                                                                                                                                                .88;
                                                                        318
                                                                                                                                                                                                   0;
                                                                                                                                                                                                              Score 43;
Pred. No.
                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                               18;
                                                                                                                                                                                                                            Length 318;
                                                                                                                                                                                                     0
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Homo sapiens AP endonuclease.

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RESULT 15
AAW52864
ID AAW528
XX AAW528
XX O8-JUL
XX OPPTIN
DE APUTIN
XX APUTIN
KW APUTIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The sequence is that encoding the APE gene which was used in the Construction of a fusion protein of the DNA repair C construction of a fusion protein of the DNA repair CC proteins 0-6-methylguanine-DNA methyltransferase (MGMT) and AP C endonuclease (APE). It can be used for protecting cells C (especially bone marrow cells) against DNA damaging agents such as CC chemotherapeutic agents used in tumour therapy and can be used in C conjunction with chemotherapy to facilitate the use of increased doses CC of chemotherapy. They can provide added protection to cells by C conjunction with recognise different types of DNA lesions. In CC disease, which recognise different types of DNA lesions. In CC addition, the FPs can be used in the treatment of DNA-repair-defective CC human diseases, e.g. Xeroderma Pigmentosum, Ataxia Telangiectasia, CC disease and other neurodegenerative diseases including amyotrophic CC disease and other neurodegenerative diseases including amyotrophic and the construction of the construction of the construction of construction of the construction of construction of construction of the construction of c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             atches
     18-DEC-1997
                                                                                                                                                                                                                                                                                                              08-JUL-1998
                                                      WO$747971-A1
                                                                                                             Homo sapiens
                                                                                                                                                        APE level; diagnosis; therapy; tumour; apoptosis
                                                                                                                                                                                  Apurinic/apyrimidinic endonuclease; APE; identification; premalignancy;
                                                                                                                                                                                                                                                                                                                                                                     AAW52864;
                                                                                                                                                                                                                                                                                                                                                                                                                      AAW52864 standard; Protein; 318
                                                                                                                                                                                                                                               Apurinic/apyrimidinic endonuclease amino acid sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; p115-116; 150pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New fusion proteins comprising 2 DNA repair proteins - used for protecting cells against DNA damage, e.g. by chemotherapeutic agents, or for treating DNA-repair-defective human diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                251 dsfrhlypn 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB; AAV32543.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kelley M, Williams D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ADRE-) ADVANCED RES & TECHNOLOGY INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-OCT-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3 DSLRHFYPN 11
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77.8%;
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Pred. No.
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Search completed: June 12, 2002, 11:23:33 Job time: 318 sec

0

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В
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                                                                  Matches
                                                                                Query Match
Best Local :
                                                                                                                                                                                 The present sequence represents an apurinic/apyrimidinic endonuclease (APE). Levels of APE in dysplasia, caicinoma in situ and squamous cell carcinomas of the cervix and prostate are substantially elevated, relative to controls. A method for identifying a premalignant or malignant condition in a human subject comprises determining the level of APE in cells from the subject, where an elevated level of APE, as compared to the APE level in corresponding normal cells, indicates a premalignant or malignant condition. APE levels can be used in the diagnosis and therapy of tumours. They can also be used for detecting, inducing or inhibiting apoptosis in cells, e.g. for treating T-cells infected with HIV or detecting apoptosis in cells
                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                      Use of apurinic/apyrimidinic endonuclease - for developing products for the diagnosis and therapy of tumours, or for detecting, inducing or inhibiting apoptosis in cells
                                                                                                                                                                          that have been subjected to chemo-, radio- or gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Pages 131-132; 166pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB; AAV21204.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ADRE-) ADVANCED RES & TECHNOLOGY INST
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11-JUN-1996;
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251 dsfrhlypn
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nes 7; Conser
                               3 DSLRHFYPN 11
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                                                                                                                                              318 AA;
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96US-0019561.
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                                                                              67.2%;
77.8%;
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                                                             0,
                                                                              Score 43;
Pred. No.
                                                              Mismatches
                                                                                              DB 19;
                                                                                          Length 318;
                                                             Indels
                                                             0
                                                         Gaps
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

OM protein - protein search, using sw model

June 12, 2002, 11:25:37; Search time 61.61 Seconds (without alignments) 17.156 Million cell updates/sec

Perfect score: US-09-780-035-12 64 QGDSLRHFYPN 11

Sequence:

Scoring table:

BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283138 seqs, 96089334 residues

number of hits satisfying chosen parameters:

283138

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum

Listing Match 100% first 45 summaries

Database : PIR\_71:\* pir1:\*
pir2:\*
pir3:\*

score ŝ No. is the number of results predicted by chance to have a greater than or equal to the score of the result being printed, serived by analysis of the total score distribution.

#### SUMMARIES

Result No. 1 2 3 4 4 7 8 9	Score 45 43 43 43 41 41	Query Match 70.3 67.2 67.2 67.2 67.2 64.1 64.1	Length 812 316 317 318 318 318 318 165 165 452 1100	222222222	1D 842397 8423950 839500 823550 826830 84460 872266 871460 871460
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12	40		332	N	S75928
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16	39		108	Ŋ	S38498
17	39		108	N	S47184
18	39		109	N	S19663
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S77168 AI3308	AD3207 F82052	S67799 E70071	S38496 C82770	T28926 S66012	T21145 S02083	AG1897	G83303
hypothetical prote glutathione S-tran		hypothetical prote conserved hypothet	Ig lambda chain - hypothetical prote	hypothetical prote 3'-exo-deoxyribonu	Ig lambda chain V-	two-component hybr	probable hydrolase hypothetical prote

#### ALIGNMENTS

R.Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alon Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, ansen, N.F.; Hughes, B.; Huizar, L.
Nature 408, 816-820, 2000

A; Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.A.; Li, J.H.; Li, Y.; Liu, S.X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marzia Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
A; Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallo ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.
A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.
A, Reference number: A86141; MUID:21016719 hypothetical protein F8A12.4 [imported] - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 02-Mar\_2001 #sequence\_revision 02-Mar\_2001 #text\_change 31-Mar-2001 R;Wilson, T.M.; Carney, J.P.; Kelley, M.R.
Nucleic Acids Res. 22, 530-531, 1994
A;Title: Cloning of the multifunctional rat apurinic/apyrimidinic endonuclease (rAPEN A;Reference number: S42397; MUID:94173709
A;Recession: S42397 RESULT S42397 밁 A; Gene: F8A12.4 A; Map position: 1 Query Match
Best Local Similarity
watches 7; Conserva A;Cross-references: GB:L27076; NID:g468370; PIDN:AAA21019.1; PID:g468371 C;Superfamily: exodeoxyribonuclease III A; Residues: 1-812 <STO> A; Cross-references: GB: C; Accession: A; Molecule type: mRNA A; Residues: 1-316 <WIL> C;Genetics: A; Molecule type: DNA A; Status: preliminary 371 DSLEHYYPN 379 3 DSLRHFYPN 11 H96544 Conservative GB:AE005173; NID:g11094686; PIDN:AAG29622.1; GSPDB:GN00141 70.3%; 77.8%; 1; Mismatches Score 45; D Pred. No. 4; DB 2 1; Indels Length 812; 0; Gaps 0

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RESULT
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                                                                                                                                                                                                                                                                                                                  C;Superfamily: exodeoxyribonuclease III
C;Keywords: carbon-oxygen lyase; DNA repair; endonuclease; nucleus
F;2-317/Product: DNA repair enzyme APEX nuclease #status experimen
                                                                                                                                                                                                                                                                                                                                                                                                 A; Cross-references: MGI:88042
A; Introns: 19/1; 81/3; 146/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Gene: MGI: Apex
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Cross-references: EMBL:U12273;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-317 < RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Title: Cloning, sequence analysis, and chromosomal assignment of the mouse Apex gene. A;Reference number: A56747; MUID:95301294
A;Accession: A56747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Molecule type: protein
A;Residues: 2-18,'XXX',22 <SE2>
R;Akiyama, K.; Nagao, K.; Oshida, T.; Tsutsui, K.; Yoshida, M.C.; Seki,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: GB:D90374; NID:g220336; PIDN:BAA14382.1; PID:g220337
A;Note: part of this sequence, including the amino end of the mature protein, was confir R;Seki, S; Ikeda, S; Watanabe, S; Hatsushika, M; Tsutsui, K; Akiyama, K; Zhang, B, Biochim. Biophys. Acta 1079, 57-64, 1991
A;Tittle: A mouse DNA repair enzyme (APEX nuclease) having exonuclease and apurinic/apyri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA-(apurinic or apyrimidinic site) lyase (EC 4.2.99.18) - mouse N;Alternate names: apurinic/apyrimidinic endonuclease; desoxyribonuclease C;Species: Mus musculus (house mouse) C;Date: 30-Jun-1992 #sequence_revision 30-Jun-1992 #text_change 20-Jun-2000 C;Accession: A39500; S17524; A56747; I49098; JU0372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-18 < AKI>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Reference number: S17524; MUID:91363416
A;Accession: S17524
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A; Residues: 1-317 <SEK>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Title: Genomic structure of the mouse apurinic/apyrimidinic endonuclease eference number: I49098; MUID:95178846 ccession: I49098
                                                                                                                                                                                               Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Biol. Chem. 266, 20797–20802, 1991
itle: cDNA and deduced amino acid sequence of a mouse DNA repair enzyme (APEX nucleas
eference number: A39500; MUID:92041936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             eki, S.; Akiyama, K.; Watanabe,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              guchi, Y.; Chen, D.J.
Genome 5, 717-722, 1994
                                                                                       250 DSFRHLYPN 258
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les 7; Conserv
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77.8%;
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77.8%;
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Pred. No.
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                                                                                                                                                                                             Mismatches
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                                                                               A; Molecule type: DNA
A; Residues: 1-146 <H
                             R; Robson,
                                                                                                                                                                                                                                                            R; Harrison,
                                                                                                                               A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                  A;Status: preliminary
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A: Residues: 1-318 < XAN>
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                                                                               1-146 <HAR>
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                          Hickson,
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5519-5523, 1991
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A;Title: Human apurinic endonuclease gene (APE): structure and genomic mapping A;Reference number: I39472; MUID:93258307 A;Accession: I39472
                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-147, 'E',149-318 < AKI>
A; Cross-references: DDBJ:D13370; NID:g219473; PIDN:BAA02633.1; PID:g219474
A;Cross-references: GB:M99703; NID:g178748;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R;Akiyama, K.; Seki, S.; Oshida, T.; Yoshida, M.C. Biochim. Biophys. Acta 1219, 15-25, 1994
A;Tille: Structure, promoter analysis and chromosomal A;Reference number: $47521; MUID:94368844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: EMBL:M81955; NID:g178746; PIDN:AAA58372.1; PID:g178747
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, February 199
R;Zhao, B.; Grandy, D.K.; Hagerup, J.M.; Magenis, R.E.; Smith, L.; Chauhan, B.C.; He
Nucleic Acids Res. 20, 4097-4098, 1992
A;Title: The human gene for apurinic/apyrimidinic endonuclease (HAP1): sequence and A;Reference number: S35456; MUID:92375705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: mRNA
A; Residues: 1-50, 'H', 52-318 <SEK>
A; Cross-references: DDBJ:D13370; NID:g219473; PIDN:BAA02633.1; PID:g219474
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: EMBL:M92444; NID:g183779; PIDN:AAA58629.1; PID:g183780 R;Seki, S.; Hatsushika, M.; Watanabe, S.; Akiyama, K.; Nagao, K.; Tsutsui, Biochim. Biophys. Acta 1131, 287-299, 1992
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A;NOte: the nucleotide sequence was submitted to the EMBL Data Library, June 1992
R;Cheng, X.B.; Burville, J.; Patterson, T.A.
Nucleic Acids Res. 20, 370, 1992
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A;Note: part of this sequence, including the amino end of the mature protein, was det.
R;Robson, C.N.; Hochhauser, D.; Criag, R.; Rack, K.; Buckle, V.J.; Hickson, I.D.
Nucleic Acids Res. 20, 4417-4421, 1992
A;Title: Structure of the human DNA repair gene HAP1 and its localisation to chromoso
A;Reference number: S25570; MUID:93027134
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C;Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 20-Jun-2000
C;Accession: S23550; S25570; S35454; S35456; S23935; S47521; I39472; S34422;
R;Xanthoudakis, S.; Miao, G.; Wang, F.; Pan, Y.C.E.; Curran, T.
EMBO J. 11, 3323-3335, 1992
A;Title: Redox activation of Fos-Jun DNA binding activity is mediated by a FA;Reference number: S23550; MUID:92371440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA-(apurinic or apyrimidinic site) lyase (EC 4.2.99.18) 1 precursor - human
N;Alternate names: AP endonuclease 1 (APEN); AP1; APEX nuclease; apurinic/apyrimidini
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                                                                                                                                                                                                                                                                                                                         n, L.; Ascione, G.; Menninger, J.C.; Genet. 1, 677-680, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  expression and possible domain structure of human
PIDN:AAA58373.1; PID:g553182
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L.; Chauhan, B.C.; Hen
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OM protein - protein search, using sw model
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June 12, 2002, 11:39:14; Search time 29.47 Seconds (without alignments)
14.452 Million cell updates/sec

Title: Perfect score: US-09-780-035-12 64 1 QGDSLRHFYPN 11

Sequence:

Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched: 105224 seqs, 38719550 residues

number of hits satisfying chosen parameters:

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : SwissProt\_40:\*

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

45	44	43	42	41	40	39	38	37	36	3 5	34	
34	34	34	34	34	34	34	34	34	34	34	34	
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P09814 t genome po	Q9jxk5 neisseria m	Q91713 xenopus rae	P09961 dictyogiomu	043299 homo sapien	P22621 plasmodium	Q917c5 pseudomonas	P13454 pseudomonas	P10681 marek's dis	P22651 marek's dis	P33500 marek's dis	P22650 marek's dis	

# ALIGNMENTS

CCCCCCCRTTRARARRARE	R R R R R R R R R R R R R R R R R R R	RA R	RESULT APE1_M ID A IC P AC P DT 0
Apex gene."; Genomics 26:63-69(1995).  [4] [4] [4] [4] [4] [4] [4] [4] [4] [4	SEQUENCE FROM N.A. STRAIN-129; TISSUE-Embryo; MEDLINE-95178846; PubMed-7533013; Takiguchi Y., Chen D.J.; "Genomic structure of the mouse apurinic/apyrimidinic endonuclease gene."; Mamm. Genome 5:717-722(1994). [3] SEQUENCE FROM N.A. STRAIN-BALB/C; TISSUE-Blood; MEDLINE-95301294; PubMed-7782087; Akiyama K., Nagao K., Oshida T., Tsutsui K., Yoshida M.C., Seki S.; Akiyama K., sequence analysis, and chromosomal assignment of the mouse	Mus musculus (Mouse).  Mus musculus (Mouse).  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  Eukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Musinae; Mus.  Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus.  NCBLTAXID=10090;  SEQUENCE FROM N.A.  MEDLINE-92041936; PubMed=1939131;  SEKI S., Akiyama K., Watanabe S., Hatsushika M., Ikeda S.,  Tsutsui K.;  Tsutsui K.;	LT 1  _MOUSE STANDARD; PRT; 316 AA. APEL_MOUSE STANDARD; PRT; 316 AA.  P28352; 01-DEC-1992 (Rel. 24, Created) 01-DEC-1992 (Rel. 24, Last sequence update) 01-MAR-2002 (Rel. 41, Last sanotation update) DNA-(apurinic or apyrimidinic site) lyase (EC 4.2.99.18) (APEX OR APE.  APEX OR APE.

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01-NOV-1995 (Rel. 32, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
DNA-(apurinic or apyrimidinic site) lyase (EC
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   STRAIN SPRAGUE-DAWLEY; TISSUE-Brain,
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STRAIN=SPRAGUE-DAWLEY; TISSUE-Testis;
MEDLINE-94173709; PubMed-7510394;
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ng of the multifunctional rat apurinic/apyrimidinic
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AP_NUCLEASE_F1_3; 1.
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P1-NOV-1991 (Rel. 40, Last annotation update
P1-16-OCT-2001 (Rel. 20, Created)
P1-16-OCT-2001 (Rel. 20, Last sequence update)
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Submitted (FEB-1999) to the EMBL/GenBank/DDBJ databases.

-i- FUNCTION: REPAIRS OXIDATIVE DNA DAMAGES IN VITRO. MAY HAVE A ROLE IN PROTECTION AGAINST CELL LETHALITY AND SUPPRESSION OF MUTATIONS.

REMOVES THE BLOCKING GROUPS FROM THE 3' TERMINI OF THE DNA STRAND BREAKS GENERATED BY IONIZING RADIATIONS AND BLEOMYCIN.

-i- CATALYTIC ACTIVITY: The C-O-p bond 3' to the apurinic or apyrimidinic site in DNA is broken by a beta-elimination reaction, leaving a 3'-terminal unsaturated sugar and a product with a
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PROSITE; PS00726; AP_NUCLEASE_F1_1;
PROSITE; PS00727; AP_NUCLEASE_F1_2;
PROSITE; PS00728; AP_NUCLEASE_F1_3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an entitles requires a license same
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Tsutsui K., Yoshida M.C., Seki S.;
"Genomic structure of the rat Apex (major
an adjacent putative O-sialoglycoprotease
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
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                                                                                                        09c6j9 arabidopsis
099pf3 rattus norv
0922j2 cricetulus
096915 homo sapien
095710 drosophila
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# ALIGNMENTS

DR P. P.	RA RA RT	RA RA RA RA	RC RA	R R O O O O O G G G	RESULT Q9C6J9 AC AC QT OT
THALIBHA: "; Nature 408:816-820(2000). EMBL; AC079284; AAG50928.1;	Sun H., Tallon L.J., Tambunga G., Toriumi M.J., Town C.D., Utterback T., Van Aken S., Vaysberg M., Vysotskala V.S., Walker M., Wu D., Yu G., Fraser C.M., Venter J.C., Davis R.W.; "Sequence and analysis of chromosome 1 of the plant Arabidopsis".	Kim C.J., Koo H.L., Kremenetskaia I., Kurtz D.B., Kwan A., Lam B., Langin-Hooper S., Lee A., Lee J.M., Lenz C.A., Li J.H., Li YP., Lin X., Liu S.X., Liu Z.A., Luros J.S., Maiti R., Marziali A., Miltscher J., Miranda M., Nguyen M., Nierman W.C., Osborne B.I., Pai G., Peterson J., Pham P.K., Rizzo M., Rooney T., Rowley D., Sakano H., Salzerg S.L., Schwartz J.R., Shinn P., Southwick A.M.,	STRAIN-CV. COLUMBIA;  MEDLINE-21016719; Pubmed-11130712;  MEDLINE-21016719; Palm C.J., Federspiel N.A., Kaul S.,  Theologis A., Ecker J.R., Palm C.J., Federspiel N.A., Kaul S.,  White O., Alonso J., Altafi H., Araujo R., Bowman C.L., Brooks S.Y.,  White O., Alonso J., Chao Q., Chen H., Cheuk R.F., Chin C.W.,  Buehler E., Chan A., Chao Q., Chen H., Cheuk R.F., Crasy T.H., Dewar K.,  Chung M.K., Conn L., Conway A.B., Conway A.R., Creasy T.H., Dewar K.,  Chunn P., Etgu P., Feldblyum T.V., Feng JD., Fong B., Fujii C.Y.,  Dunn P., Etgu P., Feldblyum T.V., Hansen N.F., Hughes B., Hulzar L.  Gill J.E., Goldsmith A.D., Haas B., Hansen N.F., Hughes B., Hulzar L.  Hunter J.T., Tenking J., Tohnson C., Khan S., Khapkin E.,  Lunter J.T., Tenking J., Tohnson C., Khan S., Khapkin E.,	F8Al2.4. Arabidopsis thaliana (Mouse-ear cress). Arabidopsis thaliana (Mouse-ear cress). Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II; Brassicales; Brassicaceae; Arabidopsis. NCBI_TaxID=3702; [1] SEOIENCE FROM N.A.	JUT 1  JUSCA PRELIMINARY; PRT; 812 AA.  Q9CGJ9; PRELIMINARY; PRT; 812 AA.  Q9CGJ9;  O1-JUN-2001 (TrEMBLrel. 17, Created)  O1-JUN-2001 (TrEMBLrel. 17, Last sequence update)  O1-JUN-2001 (TrEMBLrel. 17, Last annotation update)  HYDOTHETICAL 91 5 KDA DEGUETIN

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                Purohit S., Arenaz P.;
"Molecular cloning, sequence and structure analysis apurihic/apyrimidinic endonuclease (chapel) gene.";
Mutat. Res. 435:215-224(1999).
                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         APE.
                                                                                                                                                                                                                                                                                                                                                                                                               Cricetulus griseus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF01260; AP_endonucleas1; 2-

PROSITE; PS00726; AP_NUCLEASE_F1_1;

PROSITE; PS00727; AP_NUCLEASE_F1_2;

PROSITE; PS00728; AP_NUCLEASE_F1_3;

NON_TER 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   099PF3;
01-JUN-2001
01-JUN-2001
01-DEC-2001
                                                                                                                                                             MEDLINE=20075118; PubMed=10606812;
                                                                                                                                                                                             TISSUE-OVARY;
                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                           Cricetulus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APURINIC/APYRIMIDINIC ENDONUCLEASE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN-NORWAY.

XIE Z.H., LIU (C.Z., He Y.H.,

Submitted (OCT-2000) to the

EMBL; AF311054; AAC49922.1;

HSSP; P27695; 1BIX.
                                                                                                                                                                                                                                                                                           NCBI_TaxID=10029;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APEX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APEX (FRAGMENT).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 222
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 DSLRHFYPN 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DSFRHLYPN 230
AF056934;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IPR000097; AP_endonclse_family_1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TrEMBLrel. 17, (TrEMBLrel. 17, (TrEMBLrel. 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AA;
         AAD02702.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                  (Chinese hamster)
                                                                                                                                                                                                                                                                                                                                                     Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         32353 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               67.2%;
77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         91486
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77.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Last sequence update)
Last annotation updat
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Last sequence update)
Last annotation update)
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 45;
Pred. No.
                                                                                                                                                                                                                                                                                                                                           Craniata; Vertebrata;
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      67E82454D062CE51 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A45C45BA40056679 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
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No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
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5.7;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11;
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                                                                                                                                                                                                                                                                                                                                                  Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 289;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 812;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                of hamster
                                                                                                                                                                                                                                                                                                                                                                               Euteleostomi;
                                                                                                                                                                                                                                                                                                                                              Cricetinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Murinae; Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
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Best Local
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Best Local S
Matches 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
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Q969L5;
O1-DEC-2001 (TrEMBLrel. 19, La
O1-DEC-2001 (TrEMBLrel. 19, La
O1-DEC-2001 (TrEMBLrel. 19, La
                                                                                                                                                                                                                          Q95RL0;
Q95RL0;
01-DEC-2001
01-DEC-2001
01-DEC-2001
                                                                                             Drosophila melanogaster (Fruit fly), Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Musce Ephydroidea; Drosophilidae; Drosophila.
    Stapleton
                       SEQUENCE FROM N.A. STRAIN=Y, CN BW SP;
                                                                                                                                                                                           CG2980.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; BC008145; AAH08145.1; EMBL; BC002338; AAH02338.1; SEQUENCE 318 AA; 35568 Mario
                                                                                NCBI_TaxID=7227;
                                                                                                                                                                                                            LD21694P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APEX NUCLEASE (MULTIFUNCTIONAL DNA REPAIR ENZYME).

Homo sapiens (Human).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Strausberg R.;
Submitted (FEB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-LUNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE=BRAIN, AND ANAPLASTIC Strausberg R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=9606;
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PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Endonuclease.
SEOUENCE 317 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                      251 DSFRHLYPN 259
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TE; PS00726; AP_NUCLEASE_F1_1; 1.
TE; PS00727; AP_NUCLEASE_F1_2; 1.
TE; PS00728; AP_NUCLEASE_F1_3; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P27695; 1E9N.
Pro; IPR000097; AP_endonclse_family_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7; Conserv
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                                                                                                                                                                                                                             (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARCINOMA;
                                                                                                                                                                                                                                                                       (TrEMBLrel.
                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
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    Brokstein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      35568 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     67.2%;
77.8%;
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77.8%;
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  Hong L.,
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Maximum Match 100%
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Perfect score:
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1: /cgn2_6/ptodata/2,
2: /cgn2_6/ptodata/2,
3: /cgn2_6/ptodata/2,
4: /cgn2_6/ptodata/2,
5: /cgn2_6/ptodata/2,
6: /cgn2_6/ptodata/2,
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Match
     June 12, 2002, 11:24:28; Search time 49.09 Seconds (without alignments) 5.473 Million cell updates/sec
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Copyright (c) 1993 - 2000 Compugen Ltd.
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     DВ
             US-08-872-719-2
US-09-357-302A-12
US-09-356-890-2
US-09-542-403-12
US-08-957-302A-2
US-08-957-302A-2
US-08-957-302A-2
US-08-655-202-35
US-09-240-274-49
US-08-65-202-34
US-09-260-527-3
US-09-260-527-3
US-09-260-527-3
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US-09-280-527-3
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US-09-280-793-450-2
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US-08-793-450-2
US-08-793-450-2
US-08-793-450-3
US-09-240-274-47
US-09-240-274-48
US-08-913-581-2
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sequence 2, Appli
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sequence 3, Appli
sequence 31, Appli
sequence 4, Appli
sequence 31, Appli
sequence 3, Appli
sequence 3, Appli
sequence 1, Appli
sequence 2, Appli
sequence 6, Appli
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sequence 2, Appli
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sequence 47, Appl
sequence 2, Appli
sequence 3, Appli
sequence 3, Appli
sequence 4, Appli
sequence 6, Appli
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Qu Be Ma Qy Db	US-CO		
Query Matclest Local Best Local Matches 3 DS1	RESULT 1 US-08-872-719-2 IS Sequence 2. Applicati Patent No. 5919643 Patent No. 5919643 PATENTICONT: Kelley TITLE OF INVENTION: APPLICANT: Kelley TITLE OF INVENTION NUMBER OF SEQUENCE CORRESPONDENCE ADD STREET: P.O. BO STREET: P.O. BO CITY: HOUSTON STATE: TEXAS COUNTRY: USA ZIP: 77057-2198 COMPUTER READABLE MEDIUM TYPE: F1 COMPUTER: IBM P OPERATING SYSTEM SOFTWARE: PATEN CURRENT APPLICATION NUM FILING DATE: CO CLASSIFICATION NUM FILING DATE: CO CLASSIFICATION NUM REFERENCE/DOCKET TELECOMMUNICATION NAME: Highlande REGISTRATION NUM TELEPHONE: (512 TELECANION: (713) INFORMATION FOR SEQ SEQUENCE CHARACTER LENGTH: 318 ami TYPE: amino aci STRANDEDNESS: TOPOLOGY: linea		4444 5444 544 544 544 544 544 544 544 5
tch al Simila 7; Co DSLRHFYPN                DSFRHLYPN	719-2 2, Ap 2, Sp		S S S S S S S S S S S S S S S S S S S
Conservat Conservat PPN 11 	OB-872-719-2 OB-872-719-2 OB-872-719-2 OB-872-719-2 OB-872-719-2 Tatent NO. 5919643 GENERAL INFORMATION: METHODS A APPLICANT: Kelley, Mark R. APPLICATION: ARNOLD, WHITE & STREET: P.O. BOX 4433 CITY: HOUSTON STREET: CONCURRENT: P.O. BOX MARE: Poppy disk COMPUTER: IBM PC COMPATION MARE: Highlander: CONCURRENTLY H CLASSIFICATION NUMBER: US/08/8 FILING DATE: CONCURRENTLY H CLASSIFICATION NUMBER: 37,642 REFERENCE/DOCKET NUMBER:		553 553 553 553 553 553
67.2 77.8 ive	N: Mark R. CON: MATHODS & CCES: 2 NDDRESS: RETHODS & BOX 4433 PC COMPATIBLE PC COMPATIBLE PC COMPATION: RETHODE MARK PC COMPATION: ROCURRENTLY PC STEVEN L. METHODE MARK PC COMPATION: NINFORMATION: N		250 489 489 489 489 489 501 501 501 501 501 501 501 501 501 501
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Score 43; DB 2; Length 31 Pred. No. 2.9; 0; Mismatches 2; Indels	AND COMPOSITIONS FOR THE & DURKEE & DURKEE  Le #1.0, Version #1.30 e #1.0, Version #1.30 /872,719 HEREWITH L. 42 1 N:	ALIGNMENTS	US-09-370-700-9 US-08-663-566A-6 US-08-288-065A-6 US-08-288-065A-6 US-08-804-372A-4 PCT-US95-10245-6 US-08-663-566A-9 US-08-665A-9 US-08-288-065A-9 US-08-288-065A-9 US-08-362-240A-9 US-08-362-240A-9 US-08-362-240A-9 US-08-363-7-073-9 US-08-383-365-4 US-08-383-365-4 US-08-383-365-4 US-08-383-365-4 US-08-383-365-4 US-08-383-365-1
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US-08-957-302A-12

Sequence 12,

Application US/08957302A

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Query Match
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APPLICANT: Kelley, Mark R.
TITLE OF INVENTION: METHODS
TITLE OF INVENTION: APURINIC
NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
ADDRESSEE: ARNOLD, WHITE &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Highlander, Steven L.
REGISTRATION NUMBER: 37,642
REFERENCE/DOCKET NUMBER: INDY
TELECOMMUNICATION INFORMATION:
TELEPHONE: (512) 418-3000
TELEPAX: (713) 789-2679
INFORMATION FOR SEQ ID NO: 12:
                                                                                                                                                                                                                                                                                                                                                        Sequence 2, Application US/09336890 Patent No. 6190661
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                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COPERATING SYSTEM: PC-DOS/MS-DOS
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ZIP: 77210-4433
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
CURRENT APPLICATION DATA: APPLICATION NUMBER: US
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ATTORNEY/AGENT INFORMATION:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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APPLICANT: Williams, David
TITLE OF INVENTION: DA Sequences Encoding Fusions of DNA
TITLE OF INVENTION: Repair Proteins and Uses Thereof
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CORRESPONDENCE ADDRESS:
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                                   SOFTWARE:
                                                                                                                               COUNTRY: USA
ZIP: 77057-2198
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                                                                                                                                                                                      STREET: P.O. CITY: HOUSTON
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                                   PatentIn Release #1.0, Version #1.30
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77.8%;
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                                                                                                                                                                                                                                                                                                   METHODS AND COMPOSITIONS FOR THE USE OF
                                                                                                                                                                                                                           WHITE & DURKEE
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Pred. No.
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US-09-542-403-12
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US-09-336-890-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 12, Application US/09542403 Patent No. 6252048
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                                                                                                     TELEFAX: (713) 789-26 INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                     FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Highlander, Steven L.
REGISTRATION NUMBER: 37,642
                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/542,403
                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Kelley, Mark
APPLICANT: Williams, David
TITLE OF INVENTION: DNA Sequences Encoding Fusions of DNA
TITLE OF INVENTION: Repair Proteins and Uses Thereof
                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                     REFERENCE/DOCKET NUMBER: IN TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
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LENGTH: 318 amino acid
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"TD: 77210-4433
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   251 DSFRHLYPN 259
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                TOPOLOGY:
                                  STRANDEDNESS:
                                                                   LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/872,719
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                                               amino acid
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                                                                 318 amino acids
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                linear
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                                                                                                                                      (512) 418-3000
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77.8%;
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Gaps

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OM protein - protein search, using sw model
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Perfect score:
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1: /SIDS1/gcgdata/h
2: /SIDS1/gcgdata/h
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8: SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA198.DAT: *
9: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA198.DAT: *
9: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA198.DAT: *
10: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA198.DAT: *
11: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA199.DAT: *
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/SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA1981.DAT:*
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pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match Length DB	ength	DB:	ID	Description
1	39	100.0	7	21	AAY95196	Anti-platelet glyc
N	39	100.0	7	21	AAY95217	Anti-platelet glyc
ω	39	100.0	7	22	AAG65303	Anti-IL-18 antibod
4	39	100.0	67	16	AAR80089	Human derived ligh
σı	39	100.0	67	20	AAW95487	Human-derived RT3
σ	39	100.0	101	13	AAR22572	Light chain VL3.5
7	39	100.0	103	16	AAR80091	Human derived ligh
8	39	100.0	103	20	AAW95489	Human-derived KI3
9	39	100.0	104	17	AAR93164	Anti-rhesus D mono
10	39	100.0	106	22	AAU02518	Anti-adipocyte mon
11	39	100.0	106	22	AAU02531	Anti-adipocyte mon

Anti-platelet glyc Anti-platelet glyc Human antibody clo Amino acid sequenc CEA-specific antib Anti-TGF beta-2 sc Human antibody C4. Variable light (VL Variable light (VL Anti-adipocyte mon Anti-IL-18 antibod Anti-TGF beta-2 sc Human LH13 monoclo Amino acid sequenc Amino acid sequenc Amino acid sequenc Human SCFV agains Human SCFV agains Anti-rhesus D reco Anti-rhesus D reco Anti-platelet glyc Human SCFV3 agains Human SCFV3 agains Anti-platelet glyc Human SCFV3 agains Human SCFV3 agains Anti-platelet glyc Human SCFV3 agains Human TF anti-idio Human TF anti-idio	AAX95116 AAX95186 AAX62939 AAW1988 AAW19888 AAW47182 AAW47182 AAW47182 AAW47182 AAW47182 AAW455309 AAW15526 AAY95599 AAY655557 AAG655557 AAG655557 AAW49694 AAW49694 AAW49699 AAW95198 AAW95198 AAW49691 AAW95198 AAW49691 AAW95198 AAW49691	21 22 22 22 22 22 22 22 22 22 22 22 22 2	108 108 108 109 109 109 109 109 109 109 1109 1			22222222222222222222222222222222222222
HIV Fab t TGF beta- anti-HIV platelet platelet platelet acid sec	AAR69092 AAW15528 AAW08741 AAY95194 AAY95215 AAG62969	16 18 18 21 21 22	107 107 107 107 107	100.0 100.0 100.0 100.0 100.0	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	176644

# ALIGNMENTS

#### AAY95196 RESULT AAY95196 standard; Peptide; 7 AA. <u>\_</u>

AAY95196; 29-AUG-2000 (first entry)

Variable light chain; single chain antibody; scFv; human; HIb-1; glycoprotein Ib alpha; platelet; aggregation; antiaggregant; antithrombotic; thrombus; therapy; diagnostic; CDR2; Anti-platelet glycoprotein Ib human HIb-1 VL CDR2. complementarity determining region.

Homo sapiens.

WO200026667-A1

11-MAY-2000.

29-ocr-1999; 99WO-US25495

30-OCT-1998; 98US-0106275.

(MILL/) MILLER J L.

Miller JL;

WPI; 2000-365744/31

Isolated nucleic acid molecule encoding anti-human platelet glycoprotein Ib alpha molecule useful for producing antibodies which inhibit platelet aggregation  $\boldsymbol{\cdot}$ 

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Escherichia coli, the HID scFv clones are capable of inhibiting
Yon Willebrand factor-dependent aggregation of platelets. The scFv
Care composed of native human protein sequences and are therefore
attractive potential reagents for therapeutic purposes. They
provide a new class of antithrombotic agents, useful for the
prevention of platelet-dependent thrombi in diseased arteries,
bypass grafts, dialysis etc., and can also be used as diagnostic
reagents. Methods of inhibiting aggregation of platelets, of
binding human platelet GPPb alpha and of selecting a VH or VL
region of an antibody that inhibits platelet aggregation are
claimed. Fragments of the scFv VH or VL chain, including CDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
The present sequence is that of complementarity determining region
                                        Claim 20; Fig 7; 89pp; English.
                                                                               Isolated nucleic acid molecule encoding anti-human platelet glycoprotein Ib alpha molecule useful for producing antibodies which
                                                                                                                                                                                                                                                                                                                                                                                                                         Variable light chain; single chain antibody; scFv; human; HIb-3; glycoprotein Ib alpha; platelet; aggregation; antiaggregant; antithrombotic; thrombus; therapy; diagnostic; CDR2;
                                                                                                                                                                               Miller JL;
                                                                                                                                                                                                                                                 30-OCT-1998;
                                                                                                                                             WPI; 2000-365744/31.
                                                                                                                                                                                                             (MILL/) MILLER J L.
                                                                                                                                                                                                                                                                                 29-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                  W0200026667-A1
                                                                                                                                                                                                                                                                                                                                                                                                                 complementarity determining region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Anti-platelet glycoprotein Ib human HIb-3 VL CDR2.
                                                                      inhibit platelet aggregation -
                                                                                                                                                                                                                                                                                                                  11-MAY-2000.
                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-AUG-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY95217 standard; Peptide;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       fragments, are also claimed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 20; Fig 5; 89pp; English.
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                                                                                                                                                                                                                                             98US-0106275
                                                                                                                                                                                                                                                                                 99WO-US25495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 39; DB 21; 100.0%; Pred. No. 6.4e+05; O: Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 7;
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AAG65303
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Best Local
The invention provides isolated antibodies, or antigen-binding portions, that are capable of binding to human interleukin-18 (II-18). The antibodies may be used to inhibit human II-18 activity in, and treat a
                                                                                                                         Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders, neurological disorders, heart failure, myocardial infarction, and
                                                                          Claim 27; Page 38; 91pp; English.
                                                                                                                  autoimmune diseases -
                                                                                                                                                                                                        WPI; 2001-550020/61.
                                                                                                                                                                                                                                                              Duncan AR,
                                                                                                                                                                                                                                                                             Ghayur T,
                                                                                                                                                                                                                                                                                                                                                                                    09-FEB-2001; 2001WO-US04170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IL-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective; noottopic; neurological; antiinflammatory; antiparkinsonian; cardiant; immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.
                                                                                                                                                                                                                                              Lennard SN;
                                                                                                                                                                                                                                                                                                                 (BADI ) BASF AG.
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                                                                                                                                                                                                                                                                                                                                                                                                                        16-AUG-2001.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Anti-IL-18 antibody 2E1 light chain CDR2 fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAG65303;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAG65303 standard; protein; 7 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 attractive potential reagents for therapeutic purposes. They provide a new class of antithrombotic agents, useful for the prevention of platelet-dependent thrombo in diseased arteries, bypass grafts, dialysis etc., and can also be used as diagnostic reagents. Methods of inhibiting aggregation of platelets, of binding human platelet GPTb alpha and of selecting a VH or VL region of an antibody that inhibits platelet aggregation are claimed. Fragments of the scFV VH or VL chain, including CDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 (CDR2) of the light chain variable region (VL) of human single chain antibody (scFv) HIb-3 (see AAY95219), which is directed against platelet glycoprotein Ib (GPIb). The HIb series of scFv was isolated from a human synthettic VH and VL scFv library on the basis of their binding to platelet GPIb. Whether displayed as surface proteins on a phagemid or secreted as free scFv by Escherichia coli, the HIb scFv clones are capable of inhibiting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        fragments, are also claimed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            von Willebrand factor-dependent aggregation of platelets. The stare composed of native human protein sequences and are therefore
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
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                                                                                                                                                                                                                                                                             Dixon RW,
                                                                                                                                                                                                                                                       Dixon RW, Roguska M, White M, Brocklehurst SM, Mankovich J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 39; DB 21; illarity 100.0%; Pred. No. 6.4e+05; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
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Shorrock CP,
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Thompson JE;
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antibody may occur before, concurrent, or after administration of a second agent selected from an antibody, or fragment, capable of binding human II-12, methotrexate, anti-tumor necrosis factor, corticosteroids, cyclosporin, rapamycin, FK506, and non-steroidal anti-inflammatory agents. The present sequence represents an anti-II-18 antibody 2El light
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                stroke), heart failure, myocardial infarction, autoimmune diseases such as autoimmune hepatitis and autoimmune neutropaenia, and mental disorders (e.g., depression and schizophrenia). Treatment with an anti-IL-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    disorder where II-18 is detrimental in, a human subject suffering from, inflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease, inflammatory bowel disease, and osteoarthritis), neurological disorders (e.g., Huntington's chorea, Parkinson's disease, Alzheimer's disease, are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                   Light
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAR80089 standard; Protein; 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            chain CDR2 fragment.
                                Production of catalytic antibodies displayed on phage generating a gene library of antibody-derived domains
                                                                                                                    Chiswell D,
                                                                                                                                                                                                                                                                                                   Region
                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human derived light chain RT3 phage antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-MAY-1996 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR80089,
Disclosure; Fig 20; 133pp; English
                                                                      WPI; 1995-358624/46
N-PSDB; AAT04636.
                                                                                                                                             (IGEN-) IGEN
                                                                                                                                                                     30-MAR-1994;
                                                                                                                                                                                             30-MAR-1994;
                                                                                                                                                                                                                  12-OCT-1995
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                                                                                                                                                                                                                                                                                                                          Region
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                                                                                                                                                                                                                                                                                                                                                                         Region
                                                                                                                                                                                                                                                                            Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GKNNRPS 7
                       in phage vectors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gknnrps
                                                                                                                                                                                                                                                                                                                                                                                                                                    chain;
                                                                                                           MT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7 AA;
                                                                                                          Darsley MJ,
McCafferty J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7
                                                                                                                                               INC
                                                                                                                                                                                                                                                                                                                                                                                                                                    RT3; human; catalytic antibody; bacteriophage.
                                                                                                                                                                     94WO-US03420
                                                                                                                                                                                             94WO-US03420
                                                                                                                                                                                                                                                                              /note=
57..67
                                                                                                                                                                                                                                                                                                   /note=
45..56
                                                                                                                                                                                                                                                                                                                           /note=
13..44
                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                 /note=
                                                                                                                                                                                                                                                                                                                                                             /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                 "framework region 4"
                                                                                                                                                                                                                                                                                         "complementarity determining
                                                                                                                                                                                                                                                                                                             "framework region 3"
                                                                                                                                                                                                                                                                                                                                      "complementarity determining
                                                                                                                                                                                                                                                                                                                                                              "framework region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . 08;
                                                                                                           Fitzgerald Smith RG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 39;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                 1 K, Titmas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6.4e+05;
                                                                                                                                                                                                                                                                                                                                                              2
                                                                                                           Kenten
tmas RC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 22;
                                                                                                                      JH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                             Williams
                                                                                                                                                                                                                                                                                         region
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                                    and
                                    expressing
                                                                                                             RO:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW95487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                          (CHIS/)
(DARS/)
(FITZ/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAT04636 encodes AAR80089 human derived light chain RT3 phage antibody. The DNA was used in the prepn. of catalytic antibody (CA) producing bacteriophage. The CAs can be used to activate/deactivate a biological function in an animal by enhancing the rate of cleavage, or formation of a specific bond within a mol. in vivo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                               production of catalytic antibodies displayed on bacteriophages - comprises generating a gene library of antibody-derived domains inserting coding into a phage expression vector and isolating the
                                   The invention relates to methods for producing catalytic antibodies displayed on a phage. The method comprises: (a) generating a gene library of antibody-derived domains; (b) inserting coding for the dinto a phage expression vector; and (c) isolating the catalytic
                                                                                                                                                                                                                                                                                                                                                                                                                                     05-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                           US5855885-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        prodrug; scFV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Catalytic; antibody; phage display;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human-derived RT3 phage antibody light chain genetic sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW95487;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW95487 standard;
antibodies. The phage expression vector incorporates a histidine in tandem with a myc peptide. The catalytic antibodies can be iso preparing an antigen; optionally immunising an animal with the an
                                                                                                                        catalytic
                                                                                                                                                                                  N-PSDB;
                                                                                                                                                                                              WPI; 1999-105036/09.
                                                                                                                                                                                                                               Chiswell D,
                                                                                                                                                                                                                                                                                                                                                                         14-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                      22-JAN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                             14-JUL-1994;
                                                                                               Examples; Fig 20D; 117pp; English.
                                                                                                                                                                                                                     Martin
                                                                                                                                                                                                                                                                                          (MCCA/
                                                                                                                                                                                                                                                                                                    (MART/
                                                                                                                                                                                                                                                                                                                 (KENT)
                                                                                                                                                                                                                                                        (MILLY)
                                                                                                                                                                                                                                                                            (YTIME)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |||||||
gknnrps 12
                                                                                                                                                                                                                                                      ) SMITH R.
) TITMAS R C.
) WILLIAMS R O.
                                                                                                                                                                                                                     MT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity 7; Conserv
                                                                                                                                                                                  AAX00886
                                                                                                                                                                                                                                                                                                                                                   CHISWELL D.
                                                                                                                                                                                                                                                                                                    KENTEN J H.
MARTIN M T.
                                                                                                                                                                                                                                                                                                                             FITZGERALD K.
                                                                                                                                                                                                                                                                                                                                       DARSLEY M J.
                                                                                                                                                                                                                                                                                          MCCAFFERTY J
                                                                                                                        antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                   Darsley MJ, McCafferty J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ΑĀ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RT3.
                                                                                                                                                                                                                                                                                                                                                                          93US-0007684.
94US-0273146.
                                                                                                                                                                                                                                                                                                                                                                                                              94US-0273146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
                                                                                                                                                                                                                     Fitzgerald Smith R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 39;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     immunising; phage expression vector;
                                                                                                                                                                                                                      K, Kenten JH;
Titmas RC, Williams RO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ВВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
      the antigen;
                be isolated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                          peptide
                                                    domains
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AAR22572

ID AAR2

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AC AAR2

DT 21-A

XX Fd;

KW Fd;

KW P11;

KW Spe;

XX Spe;

XX W SPe;

                       99999999999888
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Best Local :
PCR was used to prepare a human scFv library from RNA from white blood cells from an unimmunised donor. Heavy chains from IgG and IgM antibodies were amplified separately. Four separate libraries were generated (IgG-K, IgG-lambda, IgM-K and IgM-lambda). The purified scFv fragments were ligated into the phagemid pHEM1 for expression on the surface of fd bacteriophage as gene III fusions.
                                                                                                                                                                                                                                                                                       Producing members of specific binding parecombinant host cells with a secreting
                                                                                                                                                                                                      Table 11; Page 152; 109pp; English
                                                                                                                                                                                                                                                                display package.
                                                                                                                                                                                                                                                                                                                                                                                WPI; 1992-056862/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                            Winter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                McCafferty J,
Jackson RH, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CAMB-) CAMBRIDG (MEDI-) MED RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-MAR-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      pilus; g3p; binding; adsorption; gene VIII; diverse repertoire; specific binding pairs; replicable genetic display package; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          generating a library of VH and VL domains from the immunised animal; cloning the VH and VL domains into a phage expression vector to generate phage display antibodies; selecting phage display antibodies which bind specifically to the antigen; screening the selected phage display antibodies for catalytic activity to substrate; and isolating the catalytic antibodies, where the phage expression vector incorporates a histidine peptide in tandem with a myc peptide. The processes are used to produce catalytic antibodies, which can be used for in vivo activation of a prodrug. Sequences AAM95484 489 represent genetic sequences of heavy and light chains of RT3 specific phage antibodies selected from a naive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-OCT-1990;
12-NOV-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-MAY-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-JUL-1991;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-JUL-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Light chain VL3.5 from BSA binding scFv fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-MAY-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR22572 standard; Protein; 101 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR22572;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        bacteriophage; gene III;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gknnrps 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    phage antibody library.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAMBRIDGE ANTIBODY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                      Bonnert
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Holliger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pope AR, Ju
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    91GB-0004744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90GB-0024503
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90GB-0015198
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNCIL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          Johnson KS,
, Marks JD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                filamentous; phagemid; capsid; coat; ion; gene VIII; diverse repertoire;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 39; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                 pairs - by expression
ng replicable genetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hoogenboom HRJ, Griffi
Clackson TP, Chiswell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Production of catalytic antibodies displayed on phage - by generating a gene library of antibody-derived domains and
                                       N-PSDB;
                                       WPI; 1995-358624/46.
N-PSDB; AAT04638.
                                                                          Martin MT,
                                                                                  Chiswell D,
                                                                                                            (IGEN-) IGEN
                                                                                                                                   30-MAR-1994;
                                                                                                                                                         30-MAR-1994;
                                                                                                                                                                                                       WO9527045-A1
                                                                                                                                                                                                                                         Region
                                                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                                                  Region
                                                                                                                                                                                                                                                                                                                                                                                                                              Light chain; RT3; human; catalytic antibody; bacteriophage.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequenced had the same sequence, the VH derived from a human VH3 family gene (AAR22571) and the VL from a human V lambda 3 family gene (Shown here). The other was derived from a human VH4 family gene and a human VK1 family gene. One clone bound only to phox:BSA (Oxazolone binder). This sequence revealed a VH derived from a human VH1 family gene (AAR22569) and VL from a human V lambda 1 family gene (AAR22570).

See also AAR21260-307, 309-312, AAR22450, AAR22565, AAR22567-81.
                                                                                                                                                                                                                                                                                                             Region
                                                                                                                                                                                                                                                                                                                                                        Region
                                                                                                                                                                                                                                                                                                                                                                                                                HOMO
                                                                                                                                                                                                                                                                                                                                                                                        Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human derived light chain RT3 phage antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-MAY-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAR80091;
                                                                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAR80091 standard; Protein; 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The clones were then subjected to affinity selection for binding to phox:BSA by selection on tubes followed by analysis by ELISA. 96 clones analysed, 43 showed binding to both phox:BSA and BSA. These were designated BSA binders. Thirteen of fourteen clones sequenced had the same sequence, the VH derived from a human VH3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GKNNRPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gknnrps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7; Conserv
                                                                        Darsley MJ,
McCafferty J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        101 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                 94WO-US03420
                                                                                                                                                        94WO-US03420
                                                                                                                                                                                                                                         /note=
93..10
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28..43
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17..27
                                                                                                                                                                                                                           /note=
                                                                                                                                                                                                                                                                         /note=
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                                                                                                                                                                                                                                                                                                                       /note=
                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                         .103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                         "framework region
                                                                                                                                                                                                                                                "complementarity determining
                                                                                                                                                                                                                                                                       "framework region
                                                                                                                                                                                                                                                                                                                    "framework region
                                                                                                                                                                                                                                                                                                                                                                "framework region 1"
                                                                                                                                                                                                                                                                                              "complementarity determining region
                                                                                                                                                                                                                                                                                                                                         "complimentarity determining region 1"
                                                                        Fitzgerald K, Kent
Smith RG, Titmas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 39;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                     Kenten JH;
tmas RC, V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                        Williams
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 101;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                                                                                                                                                                        (CHIS/) CHISWELL D.
(DARS/) DARSLEY M J.
(FITZ/) FITZGERALD K.
(FENT/) KENTEN J H.
(MART/) MARTIN M T.
(MCCA/) MCCAFFERTY J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAT04638 encodes AAR80091 human derived light chain RT3 phage antibody. The DNA was used in the prepn. of catalytic antibody (CA) producing bacteriophage. The CAs can be used to activate/deactivate a biological function in an animal by enhancing the rate of cleavage, or formation of a specific bond within a mol. in vivo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Catalytic; antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW95489 standard; Protein; 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                05-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         prodrug;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human-derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW95489;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   it in phage vectors
The invention relates to methods for producing catalytic antibodies displayed on a phage. The method comprises: (a) generating a gene library of antibody-derived domains; (b) inserting coding for the dinto a phage expression vector; and (c) isolating the catalytic
                                                                                                  Production of catalytic antibodies displayed on bacteriophages comprises generating a gene library of antibody-derived domains inserting coding into a phage expression vector and isolating t
                                                                                                                                                                                                                                                                                                                                                                22-JAN-1993;
14-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                                      14-JUL-1994;
                                                               Examples; Fig 20F; 117pp; English
                                                                                        catalytic
                                                                                                                                                        N-PSDB;
                                                                                                                                                                       WPI;
                                                                                                                                                                                                          Chiswell
                                                                                                                                                                                                                                     (/TTIM)
                                                                                                                                                                                                                                                  TITM/)
                                                                                                                                                                                                                                                              SMIT/)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 GKNNRPS 7
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                                                                                                                                                                     1999-105036/09.
                                                                                                                                                                                                MT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        similarity
7; Conserv
                                                                                                                                                                                                                                   TITMAS R C.
WILLIAMS R O.
                                                                                                                                                         AAX00888
                                                                                                                                                                                                                                                             SMITH R.
                                                                                                                                                                                                          D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         scFV; RT3
                                                                                          antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        103 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fig 20; 133pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                               Darsley MJ,
McCafferty J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RT3 phage antibody light chain genetic sequence.
                                                                                                                                                                                                                                                                                                                                                                93US-0007684.
94US-0273146.
                                                                                                                                                                                                                                                                                                                                                                                                        94US-0273146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   phage display; immunising; phage expression vector;
                                                                                                                                                                                             Fitzgerald K, Kenten Smith R, Titmas RC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 39; DB Pred. No. 1.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                               JH;
Williams
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 103;
                                                                                                      isclating the
 ating a gene
ding for the domains
catalytic
                                                                                                                  domains
                                                                                                                                                                                                  RO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
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RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               catalytic antibodies, where the phage expression vector incorporates a histidine peptide in tandem with a myc peptide. The processes are used to produce catalytic antibodies, which can be used for in vivo activation of a prodrug. Sequences AAW95484-489 represent genetic sequences of heavy and light chains of RT3 specific phage antibodies selected from a naive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antibodies. The phage expression vector incorporates a histidine peptide in tandem with a myc peptide. The catalytic antibodies can be isolated by preparing an antigen; optionally immunising an animal with the antigen; generating a library of VH and VL domains from the immunised animal; cloning the VH and VL domains into a phage expression vector to generate phage display antibodies; selecting phage display antibodies which bind the phage display antibodies which bind
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    specifically to the antigen; screening the selected phage display antibodies for catalytic activity to substrate; and isolating the
                                                                                                                           (INSP )
(PROT-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR93164 standard; Protein; 104 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
            Recombinant anti-rhesus D monoclonal antibody -baculovirus-transformed insect cells and useful
                                                                                                                                                                                                                                                            FR2724182-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           variable region;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rhesus positive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human monoclonal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Anti-rhesus D monoclonal antibody D7C2 light chain V region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR93164;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   human phage antibody library.
                                                      N-PSDB;
                                                                                                Chaabihi H,
                                                                                                                                                                        02-SEP-1994;
                                                                                                                                                                                                    02-SEP-1994;
                                                                                                                                                                                                                                 08-MAR-1996.
                                                                                                                                                                                                                                                                                                                  Region
                                                                                                                                                                                                                                                                                                                                                           Region
                                                                                                                                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29-0CT-1996
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                                                                     1996-162018/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 7; Conserv
                                                                                                                            INST PASTEUR.
PROTEINE PERFORMANCE
                                                       AAT26869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         103 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                 Edelman L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                        94FR-0010566
                                                                                                                                                                                                    94FR-0010566
                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers 23..33
                                                                                                                                                                                                                                                                                                                                                              /note=
49..55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antibody; immunoglobulin isotype IgM; agglutination;
rhesus negative; haemolysis; lambda light chain;
insect host cell; baculovirus; recombinant production
                                                                                                                                                                                                                                                                                                                                                                                            /label=
                                                                                                                                                                                                                                                                                                                                 note=
                                                                                                                                                                                                                                                                                                                                                /label= CDR2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 39; 100.0%; Pred. No.
                                                                                                                                                                                                                                                                                         "complementarity determining region"
                                                                                                                                                                                                                                                                                                                                 "complementarity determining region
                                                                                                                                                                                                                                                                                                                                                                           "complementarity determining region"
                                                                                                                                                                                                                                                                                                                                                                                            CDR1
                                                                                                                                                                                                                                                                                                         CDR3
                                                                                                 Kaczorek M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                   Margaritte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB
1.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                           expressed by
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             production
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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0;

haemolysis in new-born babies

and useful for preventing

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RESULT 10
AAUUZ518
ID AAUU25
XX AAUU25
XX 29-AUG
DT 29-AUG
XX Anti-a
XX Antibo
KW heart
XX Homo s
XX W02001
XX 19-APR
XX 11-OCT
XX
XX 11-OCT
XX
           Query Match
Best Local Similarity
"-+ohes 7; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAU02501-AAU02635, and AAU02641-AAU02748 represent the amino acid sequences of anti-adipocyte monoclonal antibody heavy chain, light chain, and heavy chain complementarity determining regions (CDR) of the invention. The antibodies can be used in the treatment of obesity and obesity related diseases. The antibodies can be used to deliver drugs or pro-drugs directly to the fat mass of an obese patient or the antibody can be used as a therapeutic itself. Antibodies binding specifically to by complement mediated lysis. The antibodies binding specifically to by complement mediated lysis. The antibodies may be labeled with a detectable label such as radiolabel, fluorescent or chemical group and used in methods of diagnosis in human subjects e.g. to determine the presence of adipocyte antigen on the surface of an adipocyte to detect or
                                                                                                                                                                                                                                                                              Panel of specific binding members of antibody molecules which bind whole adipocytes is used in the treatment of obesity and obesity related diseases.
                                                                                                                                                                                                                                    Claim 1; Page 104; 182pp; English.
                                                                                                                                                                                                                                                                                                                                              N-PSDB; AAS03418
                                                                                                                                                                                                                                                                                                                                                                                                Edwards BM, Main SH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-OCT-2000; 2000WO-GB03900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200127279-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cells. The antibody agglutinates rhesus positive cells but not rhesus negative cells and is useful diagnostically and also for preventing haemolysis in new-born rhesus positive babies. Recombinant IgM-D7C2 can be produced by insect cells which have been transformed by a baculoviral vector comprising a D7C2 expression cassette. The present sequence is that of the variable
                                                                                                                                                                                                                                                                                                                                                                                                                               (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Antibody; adipocyte;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Anti-adipocyte monoclonal antibody light chain,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAU02518;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAU02518 standard; Protein; 106 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             heart disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The human monoclonal antibody D7C2, of isotype IgM, recognises a 30-32 kD polypeptide on the membrane of rhesus positive red blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 1; Page 30; 46pp; French
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    region of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ||||||||
49 gknnrps 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GKNNRPS 7
                                                                                                                                                                                                                                                                                                                                                               2001-282031/29
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   104 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0158812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          complementarity determining region;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        heavy chain; light chain; obesity;
                                                                                                                                                                                                                                                                                                                                                                                              Vaughan TJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 39;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.8;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FAT 11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 104;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            fat;
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AAU02531
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 7
                                                                                                                                    AAU02501-AAU02635, and AAU02641-AAU02748 represent the amino acid sequences of anti-adipocyte monoclonal antibody heavy chain, light chain, and heavy chain complementarity determining regions (CDR) of the invention. The antibodies can be used in the treatment of obesity and obesity related diseases. The antibodies can be used to deliver drugs or pro-drugs directly to the fat mass of an obese patient or the antibody can be used as a therapeutic itself. Antibodies binding specifically to adipocytes can be used to activate the immune system to destroy the cells by complement mediated lysis. The antibodies may be labeled with a detectable label such as radiolabel, fluorescent or chemical group and used in methods of diagnosis in human subjects e.g. to determine the
                               presence of adipocyte antigen on the surface of an adipocyte to detect or determine the presence or level of adipocytes in a cell or tissue sample. The antibodies can be used as an alternative means of treatment for obese patients other than undergoing surgery to remove excess fat. Antibodies for different types of fat deposits can also be produced e.g. intra-abdominal fat associated with heart disease.
                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 112; 182pp; English.
                                                                                                                                                                                                                                                                                                                                                                                               Panel of specific binding members of antibody molecules which bind to whole adipocytes is used in the treatment of obesity and obesity related diseases -
                                                                                                                                                                                                                                                                                                                                                                                            related diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; AAS03431.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Edwards BM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-OCT-2000; 2000WO-GB03900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200127279-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antibody; adipocyte; heavy chain; light chain; obesity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Anti-adipocyte monoclonal antibody light chain, FAT 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU02531;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU02531 standard; Protein; 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              determine the presence or level of adipocytes in a cell or tissue sample. The antibodies can be used as an alternative means of treatment for obese patients other than undergoing surgery to remove excess fat. Antibodies for different types of fat deposits can also be produced e.g. intra-abdominal fat associated with heart disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   heart disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    49 gknnrps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GKNNRPS 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001-282031/29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                106 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Main SH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99US-0158812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  complementarity determining
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vaughan TJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 39; DB Pred. No. 1.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  region;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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Sequence

106 AA;

22;

Length 106;

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                                                                                                                                                                                                                                                                     XXXX
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Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
      chain genes were cloned and a combinatorial library was prepared and screened to select antigen (HIV rev or tat) binders. Human soluble anti-HIV Fabs were obtained. Heavy chain VH sequences are given in AAR69084-87, light chain VL in AAR69088-92 and light chain AAR69093-97.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HIV-1; human immunodeficiency virus type 1; AIDS; Tat protein; intracellular immunization; gene therapy; single chain antibody; Fab; antibody engineering; resistance; cell immunity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Anti-HIV Fab
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR69092 standard;
                                                             A phagemid library was constructed using lymphocyte RNN from a long-term asymptomatic HIV-1 positive donor. Heavy and li
                                                                                                                  Method for conducting gene therapy - comprises using recombinant gene encoding antibody binding antigen associated with a disease useful for providing cell immunity.
                                                                                                                                                                                                                                                                           09-FEB-1995
                                                                                                                                                                                                                                                                                                W09503832-A
                                                                                                                                                                                                                                                                                                                                                                                                                                            Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Key
                                                                                                                                                                                                                                                     28-JUL-1994;
                                                                                                                                                                                                                                                                                                                                 Region
                                                                                                                                                                                                                                                                                                                                                       Region
                                                                                                                                                                                                                                                                                                                                                                            Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                              Example 11; Page 32-33; Table 2; 62pp; English
                                                                                                                                                                                                         (UYJE-) UNIV JEFFERSON THOMAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity hes 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GKNNRPS 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gknnrps 55
                                                                                                                                                                                     Pomerantz R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tat107(VL4).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                93US-0099870
                                                                                                                                                                                                                                                                                                                     /label= CDR3
97..107
/label= FR4
                                                                                                                                                                                                                                                     94WO-US08448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                /label=
21..31
                                                                                                                                                                                                                                                                                                                                                                                                                        /note=
32..46
                                                                                                                                                                                                                                                                                                                                                                             /label= CDR2
54..85
                                                                                                                                                                                                                                                                                                                                                                                                  /label= FR2
47..53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers 1..20
                                                                                                                                                                                                                                                                                                                                                                                                                                                       /label= CDR1
                                                                                                                                                                                                                                                                                                                                                                 /label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Protein; 107 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                  "not known"
                                                                                                                                                                                                                                                                                                                                                                    FR3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 39; DB :
Pred. No. 1.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                     VH sequences are
92 and light chain
                                                                                                                                disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                       CL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW15528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                              antibody 14F12, which is specific for transforming growth factor (TGF) beta-2. It is encoded by a gene (AAF63375) isolated from a light chain shuffle repertoire of a peripheral blood lymphocyte library. The antigen-binding domains of human antibodies (see AAW15522-40) to TGF beta-1 and/or beta-2 can be used to counter the adverse effects of TGF beta, such as (1) promotion of fibrosis (in dermal, ocular or keloid scarring, lung fibrosis, arterial injury, proliferative retinopathy, retinal detachment, adult respiratory distress syndrome, liver cirrhosis, post myocardial infarction,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          screroderma; vascular didease; cataract; glaucoma; scarring; glomerulonephritis; osteoporosis; immune disease; inflammation; rheumatoid arthritis; macrophage deficiency disease; macrophage deficiency disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               antibody engineering; scFv; phage display; lung fibrosis; arterial injury; proliferative retinpathy; retinal detachment; adult respiratory distress syndrome; liver cirrhosis; post myocardial infarction; post-angioplasty restenosis; scleroderma; vascular didease; cataract; glaucoma; scarring; scleroderma; vascular didease; cataract; glaucoma; inflarmation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                  Agent contg. antigen-binding domain of human antibody to transforming growth factor beta 1 or 2 - and nucleic acid encoding it, used to neutralise effects of TGF, e.g. for control of fibrosi immune and inflammatory disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-JAN-1996;
06-OCT-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   macrophage pathogen infection; therapy; chain shuffling
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Anti-TGF beta-2 scFv antibody 14F12 VL domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW15528;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW15528 standard; Protein; 107
post-angioplasty restenosis, scleroderma, vascular disorders, cataract, glaucoma, or esp. neural scarring and glomerulonephritis, also (not claimed) osteoporosis), or (ii) immune and inflammatory
                                                                                                                                                                                                 This polypeptide sequence comprises the VL domain of human scrv
                                                                                                                                                                                                                                    Claim 5; Fig 2b(v); 184pp; English
                                                                                                                                                                                                                                                                                                                                                         N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                           WPI; 1997-215360/20
                                                                                                                                                                                                                                                                                                                                                                                                                           Tempest PR,
                                                                                                                                                                                                                                                                                                                                                                                                                                           Bacon L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-OCT-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GB2305921-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chimeric synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Transforming
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            47 gknnrps 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GKNNRPS 7
                                                                                                                                                                                                                                                                                                                                                       AAT60375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Green JA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      growth factor beta-2; TGF-beta-2; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                           Thompson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96GB-0001081.
95GB-0020486.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96GB-0020920
                                                                                                                                                                                                                                                                                                                                                                                                                                            Jackson RH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 39; DB
100.0%; Pred. No. 1.8;
                                                                                                                                                                                                                                                                                                                                                                                                                           JE,
                                                                                                                                                                                                                                                                                                                                                                                                                         Vaughan TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                              Johnson KS,
                                                                                                                                                                                                                                                                                                                                                                                                                             Williams
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                             Pope AR;
ums AJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 107;
                                                                                                                                                                                                                                                                                           of fibrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08741
                                                   Improved gene therapy using recombinant gene coding for an antibody for intracellular immunisation against pathogens recognised by the antibody, esp. human immunodeficiency virus HIV-1
                                                                                                    WPI; 1997-020948/02.
           The present sequence is a human
                                                                                                                          Duan L,
                                                                                                                                                 (UYJE-) UNIV JEFFERSON THOMAS
                                                                                                                                                                       23-MAY-1995;
                                                                                                                                                                                             23-MAY-1996;
                                                                                                                                                                                                                    28-NOV-1996
                                                                                                                                                                                                                                         W09637234-A1
                                                                                                                                                                                                                                                                        Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               diseases (e.g. rheumatoid arthritis, macrophage deficiency diseases or macrophage pathogen infection). Nucleic acids encoding human antibody VH and VL can be used for prodn. of recombinant antigenbinding domains. These are highly specific, have low dissociation constants (pref. less than 5 nM) and low IC50s for neutralisation.
                                                                                                                                                                                                                                                                                                                    Region
                                                                                                                                                                                                                                                                                                                                         Region
                                                                                                                                                                                                                                                                                                                                                               Region
                                                                                                                                                                                                                                                                                                                                                                                     Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human
                                                                                                                                                                                                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human anti-HIV Fab amino acid sequence tat107(VL4),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW08741 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ||||||||
| 49 gknnrps 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity nes 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GKNNRPS 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   therapy; antibody; immunisation;
human T-cell leukaemia virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Immunodeficiency Virus Type-1
gene therapy method has been
                                                                                                                          Pomerantz RJ;
                                Page 59-60; 213pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               107 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                      95US-0447610.
                                                                                                                                                                                            96WO-US07393.
                                                                                                                                                                                                                                                             /label= Unspecified
                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                  'label= FR4
                                                                                                                                                                                                                                                                                                                                                                         /label
                                                                                                                                                                                                                                                                                                                                                                                               'label= CDR1
                                                                                                                                                                                                                                                                                                                                                                                                                     /label- FR1
                                                                                                                                                                                                                                                                                                         'label- CDR3
                                                                                                                                                                                                                                                                                                                             label= FR3
                                                                                                                                                                                                                                                                                                                                                   'label= CDR2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Protein; 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                         = FR2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 39;
Pred. No.
          anti-HIV Fab light chain VL sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
produced,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             immunodeficiency virus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
 where
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
 a recombinant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 / diseases
} human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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RESULT
AAY95194
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                   Isolated nucleic acid molecule encoding anti-human platelet glycoprotein Ib alpha molecule useful for producing antibod
                                                          WPI; 2000-365744/31.
                                                                                                                               30-OCT-1998;
                                                                                                                                                       29-OCT-1999;
                                                                                                                                                                              11-MAY-2000.
                                                                                                                                                                                                      WO200026667-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (rec) gene is introduced into the cells of a mammal. The method is improved by using a rec gene encoding an antibody (Ab) (e.g. the present sequence) that is selectively specific for an intracellular or halt the progress of a disease. The method is used to prevent or halt the progress of a disease by IC immunisation. Specifically, the Ab can be used to inhibit the replication of a virus, such as human T-cell leukaemia virus or especially HIV-1, or of other pathogens, e.g. bacteria, fungi. The method provides immunity before or after the development of the disease and can be used to control the severity of the disease.
                                                                                                        (MILL/) MILLER
                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                     Region
                                                                                                                                                                                                                                                                                                                                                                                                                                        Variable light chain; single chain antibody; scFv; human; HIb-1; glycoprotein Ib alpha; platelet; aggregation; antiaggregant; antithrombotic; thrombus; therapy; diagnostic.
                                                                                                                                                                                                                                                                                                            Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY95194;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY95194 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
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                                                                                                                               98US-0106275
                                                                                                                                                       99WO-US25495
                                                                                                                                                                                                                                                                                     /note=
56..87
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97..10
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49..55
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34..48
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23..35
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                                                                                                                                                                                                                          "framework region
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Pred. No. 1.8;
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                     antibodies which
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inhibit platelet aggregation

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                                                                                                                                                                                                                                                                                                                                                         The present sequence is that of the light chain variable region (CVL) of human single chain antibody (scFv) HID-1 (see AAY95198), CC which is directed against platelet glycoprotein Ib (GPID). The HID CC series of scFv was isolated from a human synthetic VH and VL scFv CC library by 3 rounds of phagemid selection against transfected CHO CC cells expressing the GPID alpha component of the GPID/IX/V complex CC on their surface, followed by a 4th round of selection against CC washed human platelets, and 2 final rounds in which attempts were CC made to displace scFv from washed platelets by flooding with much monoclonal antibody or mimotope peptide (see AAY9529). CC Whether displayed as surface proteins on a phagemid or secreted CC as free scFv by Escherichia coli, the HID scFv clones are capable CC as free scFv by Escherichia coli, the HID scFv clones are capable CC and are therefore attractive potential reagents for therapeutic CC purposes. They provide a new class of antibrombotic agents, used as diagnostic reagents, Methods of inhibiting aggregation of platelets, of binding human platelet GPID alpha and of selecting CC are claimed.

CC are claimed.
                                                                                      Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 7; Conservative 0
                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                        are claimed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 18; Fig 5; 89pp; English.
49 gknnrps 55
                     1 GKNNRPS 7
                                                                                                                                                                                                        107 AA;
                                                                                         0;
                                                                                    Score 39; DB 21; Length 107; Pred. No. 1.8; ); Mismatches 0; Indels
                                                                                      0;
                                                                                    Gaps
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Search completed: June 12, 2002, 11:23:34 Job time: 319 sec

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Post-processing: Minimum Match 0% Maximum Match 100%
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                                                                                                                                                                                                                     Scoring table:
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                                                                                                                   number of hits satisfying chosen parameters:
                                                        seq length: 0 seq length: 2000000000
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39
1 GKNNRPS 7
                                                                                                                                                             283138 seqs, 96089334 residues
                                                                                                                                                                                                     Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                         BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 4.5
Copyright (c) 1993 - 2000 Comp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Compugen Ltd
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Database :

Listing first 45 summaries

PIR\_71:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*
4: pir4:\*

pir1:\*
pir2:\*
pir3:\* pir4:\*

#### SUMMARIES

Result No.	Score 39	Query Match	Length 96	DB 2	(a) 1 🗖	1 20
	39 9		96 108	22	3606 3849	
ωι	39	100.0	108	2	S47184	lambda
4	39	100.0	109	ν	S38496	lambda
5	39		109	N	1966	Ig lambda chain
6	39	•	110	N	27	
7	39	100.0	115	N	7	Ig lambda
œ	39	•	127	N	044	
9	39	100.0	146	2	S02083	
10	36	2	108	_	L3HUSH	. Ig lambda cha
11	35	9.	190	N	S25740	lambda
12	35	89.7	233	N	S25748	lambda
13	34	.7	233	N	S25741	Ig lambda chain
14	33	4.	248	N	H84682	hypothetica
15	33	4	305	N	7	clathrin heavy
16	33		848	N	S59645	
17	33	٠	1675	ب	LRRTH	
18	32	2	110	N	S57442	Ig lambda chain
19	32		1503	N	T18266	O
20	32		1858	N	T18273	1-phosphat
21	31	79.5	406		C70851	probable hydrolase
22	31	9	432		D64046	N-acetylmuramoyl-
23	31	9	585		S55205	dihydroxy-acid
24	31	9.	1060		S63252	hypothetic
25	31	9.	1181		D86157	hypothetica
26	31	9	1225		C84530	hypothetica
27	31	9.	1323		E88257	protein let
28	31	9.	1374		3	rrotein-turosine
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Matches

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45	44	43	42	41	40	39	38	37	36	35	34	<u>ა</u>	32	31	30
30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9
743	661	658	592	526	520	470	415	411	385	368	296	257	110	93	93
N	N	_	N	N	N	N	ר	N	N	N	N	N	N	N	2
A87118	G97717	S23391	T44697	A34896	AE3563	T32107	JC1494	S66916	I51307	G84769	T23380	G86710	S19672	C71835	C64684
ATP-dependent DNA	hypothetical prote	transcription fact	probable ATP-depen	adenylate cyclase-	erythrito1 kinase	hypothetical prote	ribonucleoprotein	hypothetical prote	basolateral Na(+)-	hypothetical prote		conserved hypothet	Ig Lambda chain v		ribosomal protein

# ALIGNMENTS

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A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-108 <MAS/
A;Cross-references: EMBL:Z23035; NID:g414043; PIDN:CAA80570.1; PID:g414044
A;Cross-references: EMBL:Z23035; NID:g414043; PIDN:CAA80570.1; PID:g414044
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
C;Keywords: heterotetramer; immunoglobulin
F;14-88/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: EMBL:222202; NID:g312325; PIDN:CAA80211.1; PID:g312326 C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin F;15-89/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S36060
Ig lambda chain - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 22-Nov-1993 #sequence_revision 01-Dec-1995 #text_change 21-Jan-2000
                                                                                                                                                                                                                                                                                                  A; Reference number: S38488
A; Accession: S38498
A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                           C;Accession: S38498
R;Marks, J.D.; Ouwehand, W.H.; Bye, J.M.; Finnern, R.; Gorick, B.D.; Voak, D.; Thorpe submitted to the EMBL Data Library, June 1993
A;Description: Human antibody fragments specific for human blood group antigens from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ig lambda chain - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 21-Jan-2000
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A;Reference number: S36046
A;Accession: S36060
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A; Residues: 1-96 <WIL>
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Best Local Similarity
                                            Query Match
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h 100.0%; Score 39; DI Similarity 100.0%; Pred. No. 0.57; Conservative 0; Mismatches
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100.0%; Pred. No. 0.47;
tive 0; Mismatches
                          Score 39; DB 2
Pred. No. 0.53;
                                                        DB 2;
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                                                        Length 108;
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A;Title: By-passing immunization. Human antibodies from V-gene libraries displayed on A;Reference number: S19663; MUID:92085276
                                                  R;Marks, J.D.; Hoogenboom, H.R.; Bonnert, T.P.; McCafferty, J.; Griffiths, A.D.; Winter, J. Mol. 'Biol. 222, 581-597, 1991
                                                                                                     Ig lambda chain V region (clone alpha-BSA3) - human
C:Species: Homo sapiens (man)
C:Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 20-Jun-2000
C:Accession: S19663
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cross-references: EMBL:223031; NID:g414039; PIDN:CAA80566.1; PID:g414040 uperfamily: immunoglobulin V region; immunoglobulin homology Keywords: heterotetramer; immunoglobulin F;15-89/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-109 <MAR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ig lambda chain - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 21-Jan-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 21-Jan-2000
C;Accession: S47184
R;McIntosh, R.S.; Tandon, N.; Metcalfe, R.A.; Weetman, A.P.
submitted to the EMBL Data Library, June 1994
A;Reference number: S47181
A;Reference number: S47181
A;Accession: S47184
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Marks, J.D.; Ouwehand, W.H.; Bye, J.M.; Finnern, R.; Gorick, B.D.; Voak, D.; Thorpe, submitted to the EMBL Data Library, June 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C; Accession: S38496
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A; Residues: 1-108 <MCI>
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Best Local
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                                                                                                                                                                                                                                                                                                      49 GKNNRPS 55
                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
Local Similarity 100.0%;
les 7; Conservation
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Pred. No. 0.53;
Nismatches
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                                             Query Match
Best Local Similarity
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F;34-108/Domain: immunoglobulin homology <IMM>
                                                                                                                C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin
                                                                                                                                                                                                            A;Cross-references: EMBL:X56178; NID:g33404; PIDN:CAA39639.1; PID:g33405
                                                                                                                                                                                                                                                                                                R;Frippiat, J.P.; Chuchana, P.; Bernard, F.; Buluwela, L.; Lefranc, G.; Lefranc, M.P. Nucleic Acids Res. 18, 7134, 1990
A;Title: First genomic sequence of a human Ig variable lambda gene belonging to subgr A;Reference number: S13726; MUID:91088295
A;Accession: S13726
                                                                                                                                                                         A; Introns: 16/1
                                                                                                                                                                                               C; Genetics:
                                                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-115 <FRI>
                                                                                                                                                                                                                                                                                           A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Species: Homo sapiens (man)
C;Date: 25-Feb-1994 #sequence_revision 10-Nov-1995 #text_change 21-Jan-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                    C; Accession: S13726
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C:Accession: S36272
R;Griffiths, A.D.; Malmqvist, M.; Marks, J.D.; Bye, J.M.; Embleton, M.J.; McCafferty, EMBO J. 12, 725-734, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ig lambda chain V region - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Status: preliminary; nucleic acid sequence not shown A;Modecule type: mRNA A;Residues: 1-110 <GRI>
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A;Molecule type: mRNA
A;Residues: 1-109 <MAR>
A;Cross references: EMBL:X61640; NID:g29492; PIDN:CAA43821.1; PID:g1340166
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;15-89/Domain: immunoglobulin homology <IMM>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ig lambda chain V region (clone alpha-THY-29) - human (fragment)
C:Species: Homo sapiens (man)
C:Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 21-Jan-2000
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100.0%; Score 39; 100.0%; Pred. No.
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Pred. No. 0.53;
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Conservative

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Length 115;

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A; Experimental source: cell line E29.1, clone VL 29-1
A; Experimental source: cell line E29.1, clone VL 29-1
C; Superfamily: immunoglobulin V region; immunoglobulin
C; Keywords: heterotetramer; immunoglobulin
E; 1-20/Domain: signal sequence #status predicted <SIG>
F; 21-127/Product: Ig lambda chain V region (fragment) #F; 34-108/Domain: immunoglobulin homology <IMM>
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R;Cuisinier, A.M.; Funoux, F.; Fougereau, M.; Tonnelle, C.
Mol. Immunol. 29, 1363-1373, 1992
A;Title: IgM kappa/lambda EBV human B cell clone: an early step of differentiation A;Reference number: S70442; MUID:93024508
A;Accession: S70444
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C;Date: 24-Jul-1998 #sequence_revision 24-Jul-1998 #text_change
                                                                                                                                                                                              A;Molecule type: protein
A;Residues: 1-70;71-72;73-75;76-131;132-146 <FYK>
A;Residues: 1-70;71-72;73-75;76-131;132-146 <FYK>
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;14-88/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                             R;Fykse, E.M.; Sletten, K.; Husby, G.; Cornwell III, G.G. Blochem. J. 256, 973-980, 1988
A;Title: The primary structure of the variable region of an immunoglobulin IV light-cha. A;Reference number: S02083; MUID:89134210
A;Accession: S02083
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A; Residues: 1-90 <TON>
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A; Residues: 1-127 <CUI>
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В
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Best Local (
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Best Local
                                                                                           Matches
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48 GKNNRPS
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                                            1 GKNNRPS 7
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                                                                                                              Similarity
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Pred. No.
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RESULT

10

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A;Cross-references: GDB:119342; OMIM:147240
A;Map position: 22q11.2-22q11.2
C;Complex: An immunoglobulin heterotetramer subunit consists of two identical light (C;Complex: An immunoglobulin becases, such as IgA and IgM, the subunits associate into hain disulfide bonds. In some cases, such as IgA and IgM, the subunits associate into C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin c;Keywords: heterotetramer; immunoglobulin f;14-8B/Domain: immunoglobulin homology <IMM>
F;21-86/Disulfide bonds: #status experimental
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A;Title: The amino acid sequence of a lambda type Bence-Jones protein. III. A;Reference number: A92057; MUID:70166723
A;Accession: A01980
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C;Date: 24-Apr-1984 #sequence_revision 24-Apr-1984 #text_change 02-Sep-1997
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R;Combriato, G.; Klobeck, H.G.
R;Combriato, G.; Klobeck, H.G.
Eur. J. Immunol. 21, 1513-1522, 1991
Eur. J. Immunol. 21, 1513-1522, 1991
A;Title: V(lambda) and J(lambda)-C(lambda) ge
A;Reference number: S16439; MUID:91257162
A;Accession: S25740
A;Status: preliminary; translation not shown
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C;Species: Homo sapiens (man)
C;Date: 22-Nov-1993 #sequence_revision 26-May-1995 #text_change 21-Jan-2000
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C;Accession: S25748
R;Combriato, G.; Klobeck, H.G.
Eur. J. Immunol. 21, 1513-1522, 1991
A;Title: V(lambda) and J(lambda)-C(lambda) gene segments of A;Reference number: S16439; MUID:91257162
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                                                                                                                                                                                                                     RESULT
S25748
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                                                                                                                                   Ig lambda chain - human
C;Species: Homo sapiens (man)
C;Date: 22-Nov-1993 #sequence_revision 26-May-1995 #text_change 21-Jan-2000
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A; Residues: 1-190 < COM>
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Best Local Similarity
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85.7%;
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Pred. No. 6.4;
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R.Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.; M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; VanAken, S.E.; Umayam, L.; Tallon, L. euss, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter, Nature 402, 761-768, 1999
A;Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana. A;Reference number: A84420; MUID:20083487
                                                                                                                                                                                                                                                                                                                                                                            A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-248 <STO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Mypothetical protein At2g28270 [imported] - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 16-Feb-2001 C;Accession: H84682
                                                                                                                                                              C; Superfamily: Arabidopsis hypothetical protein F4I1.18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Reference number: A84420; A; Accession: H84682
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                                                                                                                                                                                                                  A; Map position: 2
                                                                                                                                                                                                                                                        A; Gene: At2g28270
                                                                                                                                                                                                                                                                                                   C; Genetics:
                                                                                                                                                                                                                                                                                                                             A;Cross-references: GB:AE002093; NID:g4803954; PIDN:AAD29826.1; GSPDB:GN00139
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A; Status: preliminary; translation not shown
A; Molecule type: mRNA
A; Residues: 1-233 <CON>
A; Res
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A;Title: V(lambda) and J(lambda)-C(lambda) gene segments of the human immunoglobulin lam
A;Reference number: S16439; MUID:91257162
A;Accession: §25741
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C;Accession: S25741
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C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; immunoglobulin
F;148-216/Domain: immunoglobulin homology <IMM>
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Eur. J. Immunol. 21, 1513-1522
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R;Dodge, G.R.; Kovalszky, I.; McBride, O.W.; Yi, H.F.; Chu, M.; Saitta, B.; Stokes, D. Genomics 11, 174-178, 1991
A;Title: Human clathrin heavy chain (CLTC): partial molecular cloning, expression, an A;Reference number: A40573; MUID:92112210
A;Accession: A40573
В
                            δõ
                                                                                                                                        A;Cross-references: GB:X55878; GB:S75467; NID:g29982; PIDN:CAA39363.1; PID:g29983 C;Superfamily: clathrin heavy chain
                                                                                                                                                                                                                                                                                                      C;Species: Homo sapiens (man)
C;Date: 03-Apr:1992 #sequence_revision 03-Apr-1992 #text_change 13-Aug-1999
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A; Residues: 1-305 < DOD>
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                          2 KNNRPS 7
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Search completed: June 12, 2002, 11:25:39
Job time: 304 sec

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OM protein - protein search, using sw model
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June 12, 2002, 11:39:15; Search time 29.47 Seconds (without alignments) 9.197 Million cell updates/sec
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Title: Perfect score: US-09-780-035-13 39 1 GKNNRPS 7

Sequence:

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched:

number of hits satisfying chosen parameters: 105224 seqs, 38719550 residues 105224

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100%. Listing first 45 summaries

Database : SwissProt\_40:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

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36 29 74.4 161 1 YBH_YEAR  37 29 74.4 166 1 TLPL_HIMAN  38 29 74.4 166 1 TLPL_HIMAN  38 29 74.4 166 1 TLPL_HIMAN  29 74.4 243 1 YHS7_YEARS  39 29 74.4 271 1 XYA_BACSU  39 29 74.4 323 1 YHS7_YEARS  40 29 74.4 323 1 YC15_SCHPO  41 29 74.4 323 1 YC15_SCHPO  42 29 74.4 415 1 TR16_CHICK  43 29 74.4 415 1 TR16_CHICK  44 29 74.4 415 1 TR16_CHICK  45 29 74.4 425 1 GAC_FSVAN  ALIGNEMIS  45 29 74.4 425 1 GAC_FSVAN  ALIGNEMIS  45 29 74.4 425 1 GAC_FSVAN  ALIGNEMIS  46 29 74.4 425 1 GAC_FSVAN  ALIGNEMIS  47 20 17.4 425 1 GAC_FSVAN  ALIGNEMIS  48 29 74.4 425 1 GAC_FSVAN  ALIGNEMIS  49 29 74.4 425 1 GAC_FSVAN  ALIGNEMIS  40 29 74.4 425 1 GAC_FSVAN  ALIGNEMIS  40 29 74.4 425 1 GAC_FSVAN  ALIGNEMIS  41 29 74.4 425 1 GAC_FSVAN  ALIGNEMIS  42 29 74.4 425 1 GAC_FSVAN  ALIGNEMIS  43 29 74.4 425 1 GAC_FSVAN  ALIGNEMIS  44 29 74.4 425 1 GAC_FSVAN  ALIGNEMIS  45 29 74.4 425 1 GAC_FSVAN  ALIGNEMIS  46 29 74.4 425 1 GAC_FSVAN  ALIGNEMIS  47 20 20 20 20 20 20 20 20 20 20 20 20 20					
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RESULT
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Best Local Similarity
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                                                                                                                                                    MEDLINE-96051387; PubMed=7584026;
MOMUTA N., Miyejima N., Sazuka T., Tanaka A., Kawarabayasi Y.,
Sato S., Nagase T., Seki N., Ishikawa K.-I., Tabata S.;
"Prediction of the coding sequences of unidentified human genes. I.
The coding sequences of 40 new genes (KIAA0001-KIAA0040) deduced by analysis of randomly sampled cDNA clones from human immature myeloid
                                                                                                                                                                                                                                                                                                                                                                               000610;
01-DEC-1992 (Rel. 24, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
Clathrin heavy chain 1 (CLH-17).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pfam; pF00270; DEAD; 1.
Pfam; pF00271; helicase_C; 1.
SMART; SM00487; DEXDC; 1.
SMART; SM00490; HELICG; 1.
SMART; SM00490; DEAD_ATP_HELICASE; 1.
PROSITE; PS00039; DEAD_ATP_HELICASE; 1.
ATP_BIND 113 120 ATP_CSMILLARITY).
NP_BIND 113 120 ATP_CSMILLARITY).
 expression, and mapping of the
               "Human clathrin heavy chain (CLTC):
                               Dódge G.R., Kovalszky
Stokes D.G., Iozzo R.V
                                                                 MEDLINE=92112210; PubMed=1765375;
                                                                                                                                                                                                                                                             TISSUE=Bone marrow;
                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebratá; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                 TISSUE-Colon
                                                                                               SEQUENCE OF 560-864 FROM N.A.
                                                                                                                              DNA Res. 1:27-35(1994).
                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                        CLTC OR CLH17 OR KIAA0034.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLH1_HUMAN
                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Deviin K., Churcher C.M., Barrell B.G., Rajandream M.A., Walsh S.V.; Submitted (JUL-1995) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: PUTATIVE ATP-DEPENDENT RNA HELICASE.
-!- SIMILARITY: BELONGS TO THE DEAD BOX HELICASE FAMILY. HIGHLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       [1]
SEQUENCE FROM N.A.
STRAIN-972;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  839 KNNRPS 844
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IPRO00629; DEAD_ATP_helicase.
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848 AA;
                               Iozzo R.V.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
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223
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                                             I., McBride O.W., Yi H.F., Chu M.L.,
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Pred. No.
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 gene
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to human
               partial molecular cloning,
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26;
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RESULT 4
CLH_BOVIN
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Best Local :
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                                                                                                                   01-OCT-1996 (Rel. : 01-OCT-1996 (Rel. : 01-NOV-1997 (Rel. : 1
                                                                                                                                                                                                                                                                                                                                            CONFLICT
CONFLICT
SEQUENCE
        SEQUENCE FROM N.A
                                                                                                         Clathrin heavy chain.
                                Bovidae; Bovinae;
NCBI_TaxID=9913;
                                                         Mammalia; Eutheria;
                                                                     Eukaryota;
                                                                                  Bos taurus (Bovine).
                                                                                                                                                           P49951;
                                                                                                                                                                      CLH_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR001473; Clathrin_propel.
InterPro; IPR000547; Clathrin_repeat.
Pfam; PF01394; Clathrin_propel; 7.
Pfam; PF00637; Clathrin_repeat; 7.
SMART; SM00299; CLH; 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; D21260; BAA04801.1; -.
EMBL; X5888; CAA39383.1; -.
PIR; A40573; A40573.
HSSP; P11442; 1BPO.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Genomics 11:174-178(1991).

1- FUNCTION: CLATHRIN IS THE MAJOR PROTEIN OF THE POLYHEDRAL COAT OF COATED PITS & VESICLES. TWO DIFFERENT ADAPTOR PROTEIN COMPLEXES LINK THE CLATHRIN LATTICE EITHER TO THE PLASMA MEMBRANE OR TO THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             +
                                                                                                                                                                                                                                                          2 KNNRPS 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBUNIT: CLATHRIN TRISKELIONS, COMPOSED OF 3 HEAVY CHAINS AND 3 LIGHT CHAINS, ARE THE BASIC SUBUNITS OF THE CLATHRIN COAT. IN THE PRESENCE OF LIGHT CHAINS, HUB ASSEMBLY IS INFLUENCED BY BOTH THE PH AND THE CONCENTRATION OF CALCIUM.
SUBCELLULAR LOCATION: CYTOPLASMIC FACE OF COATED PITS AND
                                                                                                                                                                                                                                    KNNRPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIMILARITY: BELONGS TO THE CLATHRIN HEAVY CHAIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRANS GOLGI NETWORK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VESICLES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      pits.
                                                                                                                                                                                                                                                                                              Similarity
                                                        Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
                                                                                                                                                                                                                                                                                                                                             1213
1550
560
817
1675
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639
449
                                                                                                                                                                      STANDARD;
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                                                                                                                   . 34, Created)
. 34, Last sequ
. 35, Last anno
                                              Bos.
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                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                          (POTENTIAL).
LIGHT CHAIN (BY SIMILARITY).
TRIMERIZATION (BY SIMILARITY).
Q -> R (IN REF. 2).
G -> V (IN REF. 2).
MW; 6C4F2D54950079E2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                PROXIMAL SEGMENT.
BINDING SITE FOR THE
INVOLVED IN LATTICE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GLOBULAR TERMINAL DOMAIN FLEXIBLE LINKER. HEAVY CHAIN ARM.
                                                                                                                                                                      1675
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55;
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                                                                                                                                                                                                                                                                                                                                                                                                                              THE UNCOATING ATPASE,
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                                                        Bovoidea;
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TISSUE=Kidney;

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Database :
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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Maximum DB seq length: 2000000000
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1: sp_archea:*
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Gapop 10.0 , Gapext 0.5
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39
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                                                                                                                               sp_organelle:*
sp_phage:*
sp_vertebrate:*
sp_unclassified:*
sp_rvirus:*
sp_bacteriap:*
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sp_invertebrate:*
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sp_virus:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARI

		æ			SUMMARIES	38
Result		Query				
No.	Score	Match	Match Length DB ID	BB	· ID	Description
_	39	100.0	107	4	Q9NSD6	O'9nsd6 homo sapien
2	33	84.6	248	10	Q9SL28	Q9s128 arabidopsis
ω	33	84.6	515	10	Q9LUD2	Q9lud2 arabidopsis
4	33	84.6	531	ω	094748	094748 neurospora
U	32	82.1	626	ω	042790	042790 neurospora
6	32	82.1	626	w	042791	042791 neurospora
7	32	82.1	1333	N	Q9F0I5	Q9f0i5 paenibacill
œ	32	82.1	1503	N	052973	
9	31	79.5	272	12	Q997I9	Q997i9 bovine aden
10	31	79.5	406	N	Q93AQ2	Q93aq2 mycobacteri
11	31	79.5	406	16	053593	053593 mycobacteri
12	31	79.5	699	N	Q51287	Q51287 neisseria m
13	CI.	79.5	1181	10	Q9SRW9	()9srw9 arabidopsis
14	31	79.5	1225	10	Q9ZQF8	Q9zqf8 arabidopsis
15	31	79.5	1260	σ	Q9W2Y5	09w2v5 drosophila
16	31	79.5	1484	4	Q9BXF3	Q9bxf3 homo sapien

RESULT

0;

4.5	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
76.9					76.9																						76.9	76.9
770	759	713	712	711	889	661	656	601	578	578	574	574	538	519	470	455	425	421	417	411	385	379	368	319	297	296	257	212
11	10	N	2	N	σı	16	17	10	11	4	4	4	N	N	S	w	σ	თ	5	w	13	17	10	10	12	ъ	16	9
Q9Z1E0	Q9SIX2	085051	09ZI06	Q9ZFD4	Q9VBE6	Q92JC4	Q97AI4	Q94AV3	Q99JA3	Q969N2	Q9Y2Z5	Q9UJG6	Q9S4A4	Q9ZB32	016747	094232	Q28759	Q9BIC9	Q9V4V1	Q08412	Q91412	Q97AS9	082288	Q9LHS3	Q9III1	001340	Q9CHP1	Q9MBS2
Q9z1e0 mus musculu	2 arabidops	moraxella		Q9zfd4 moraxella c	Q,		Q97ai4 thermoplasm	arak	Buns.	Q969n2 homo sapien	homo		Q9s4a4 actinobacil	Q9zb32 brucella ab				_		ß					Q9iiil frog adenov		Q9chpl lactococcus	Q9mbs2 staphylococ

# ALIGNMENTS

Qy 1 GKNNRPS 7	Query Match Best Local Similarity 100 Matches 7; Conservative	OSNSD6 OS	RESULT 1
	100.0%; Score 39; DB 4; Length 107; 100.0%; Pred. No. 0.75; 1ve 0; Mismatches 0; Indels 0; Gaps	RELIMINARY; PRT; 107 AA.  TYEMBLrel. 15, Created) TYEMBLrel. 15, Last sequence update) TYEMBLrel. 19, Last annotation update) TYEMBLREL	

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Best Local :
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01-OCT-2000
01-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-DEC-2000 (TrEMBLTel. 13,
01-DEC-2001 (TrEMBLTel. 19,
ATZG28270 PROTEIN.
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Q9SL28;
01-MAY-2000
                                                                                                                                                                         01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
CYTOCHROME P450 (AT3G14620/MIE1_12).
Arabidopsis thaliana (Mouse-ear cress).
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnollophyta; eudicotyledons; core eudicots; Rosid eurosids II, Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN-CV. COLUMBIA;
MEDLINB-20083487; Pubmed-10617197;
Lin X., Kaul S., Rounsley S.D., Shea T.P., Benito M.-I., Town C.D.,
Fujii C.Y., Mason T.M., Bowman C.L., Barnstead M.E., Feldblyum T.V.,
Buell C.R., Ketchum K.A., Lee J.J., Ronning C.M., Koo H., Moffat K.S.,
Cronin L.A., Shen M., Vanaken S.E., Umayam L., Tallon L.J., Gill J.E.,
Adams M.D., Carrera A.J., Creasy T.H., Goodman H.M., Somerville C.R.,
Copenhaver G.P., Preuss D., Nierman W.C., White O., Eisen J.A.,
Salzberg S.L., Fraser C.M., Venter J.C.;
"Sequence and analysis of chromosome 2 of the plant Arabidopsis
thaliana.";
                                                                                            Submitted
                                                                                                        Sato S.,
                                                                                                                     STRAIN=COLUMBIA;
                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                        Q9LUD2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro; IPR004146; DC1.
InterPro; IPR001965; PHD.
Pfam; PF03107; DC1; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases. EMBL; AC006202; AAD29826.1; -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta; Embry.
Spermatophyta; Magnoliophyta; eudicotyledons;
eurosids II; Brassicales; Brassicaceae; Arabi
                              STRAIN-COLUMBIA;
MELLINE-20277480; PubMed-10819329;
                                                               SEQUENCE FROM N.A.
                                                                                                                                                               NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                   Nakamura Y.;
"Structural analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nature 402:761-768(1999).
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CE 248 AA;
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                                                                                         (FEB-1999)
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28016 MW;
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        of Arabidopsis thaliana chromosome
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                                                                                                        Kaneko
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Last annotation update)
                                                                                         EMBL/GenBank/DDBJ databases
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Created)
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                                                                                                        T., Kato T.,
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Best Local
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094748; 091-MAY-1999 (TIEMBLIEL. 10, Created)
01-MAY-1999 (TIEMBLIEL. 10, Last sequence update)
01-OCT-2001 (TIEMBLIEL. 18, Last annotation update)
PROTEIN PHOSPHATASE-2-LIKE SERINE/THREONINE PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Arabidopsis cDNA clones.";

Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases.
-!-SIMILARITY: BELONGS TO THE CYTOCHROME P450 FAMILY.
EMBL; AB023038; BAB02394.1; -.
EMBL; AV052208; AAK97679.1; -.
InterPro; IPR0011128; Cyt_P450.
Pfam; PF00067; P450; 1.
PFAMT; PF00085; P450.
PRINTS; PR00385; P450.
PROSITE; PS00086; CYTOCHROME_P450; UNKNOWN_1.
Heme; Monoxygenase; Oxidoreductase.
SEQUENCE 515 AA; 58643 MW; 9F4EFCF7686F55A1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA Res.
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                                                                                                                PROSITE; PS00125; SER_THR_PHO:
Hydrolase; Iron; Manganese.
SEQUENCE 531 AA; 58311 MW;
                                                                                                                                                                                                InterPro; IPR000934; Ser_thr_phosphtse pfam; Pr00114; STPhosphatase; 1. PRINTS; PR00114; STPHPHTASE.
SMART; SM00156; PP2AC; 1.
                                                                                                                                                                                                                                                                                                                 -!- SIMILARITY: BELONGS TO THE PPP EMBL; AF071752; AAD09996.1; -. EMBL; AF071751; AAD09995.1; -. HSSP; P08129; 1FJM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Szoor B., Fe
Dombradi V.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Fungi;
Sordariales; Sorda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "pzl-1 encodes a novel protein phosphatase-Z-like Ser/Thr protein phosphatase in Neurospora crassa.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATALYTIC ACTIVITY: A PHOSPHOPROTEIN + H(2)0 = A PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                         ORTHOPHOSPHATE (THIS ENZYME IS SERINE/THREONINE SIMILARITY: BELONGS TO THE PPP FAMILY OF PHOSPHA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ungi; Ascomycota; Pezizomycotina;
Sordariaceae; Neurospora.
                                                                                                                                                                        SER_THR_PHOSPHATASE; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zeke T., Gergely P.,
     84.6%;
85.7%;
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     Score
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Pred. No.
                                                                                                                      D9D3B71EA704F736 CRC64;
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     No.
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73;
DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                       SPECIFIC)
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Perfect score:
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Maximum DB seq
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1: /cgn2_6/ptodata/2/
2: /cgn2_6/ptodata/2/
3: /cgn2_6/ptodata/2/
4: /cgn2_6/ptodata/2/
5: /cgn2_6/ptodata/2/
6: /cgn2_6/ptodata/2/
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Copyright (c) 1993 - 2000 Compugen Ltd.
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/cgn2_6/ptodata/2/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/2/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/2/iaa/backfiles1.pep:*
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US-08-665-202-35
US-08-665-273-146-71
US-08-652-1616A-16
US-08-652-1616A-16
US-08-652-1616A-16
US-08-652-202-34
US-08-652-202-34
US-09-260-527-3
US-09-279-029-9
US-09-279-029-9
US-09-240-274-49
US-09-240-274-49
US-08-305-683A-10
US-09-240-274-49
US-08-918-930-307
US-08-918-930-307
US-08-918-148-71
US-08-918-148-71
US-08-918-148-74
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Sequence 49, Appli
Sequence 10, Appli
Sequence 10, Appli
Sequence 307, Appli
Sequence 11, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 65, Appli
Sequence 64, Appl
Sequence 74, Appl
Sequence 74, Appli
Sequence 74, Appli
Sequence 74, Appli
Sequence 2, Appli
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Sequence 35, Appl
Sequence 71, Appl
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34, Appl
6, Appli
6, Appli
3, Appli
1, Appli
10, Appli
47, Appl
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45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28
28	28	28	28	28	28	28	28	28	28	28	28	28	28.5	29	29	29	29
71.8	71.8	71.8	71.8	71.8	71.8				71.8		71.8		73.1	74.4	74.4	74.4	74.4
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US-09-049-672A-7	US-08-345-321-4	US-09-240-274-63	US-09-136-389-152	US-08-839-765-152	US-08-082-842A-16	US-08-646-360-152	US-08-477-531B-16	US-08-472-788A-16	US-08-107-669D-16	US-08-477-484B-152	US-08-488-113B-152	US-08-672-850-18	US-08-477-451-2	PCT-US95-10661A-4	US-08-296-791-4	US-08-504-511A-4	US-08-035-392-4
Sequence /, Appli	Sequence 4, Appli	Sequence 63, Appl	Sequence 152, App	Sequence 152, App	7	Sequence 152, App	Sequence 16, App1	Sequence 16, Appl			-	Þ	Sequence 2, Appli	4.	Sequence 4, Appli	Sequence 4, Appli	Sequence 4, Appli

# ALIGNMENTS

; Patent No. 5855885 : GENERAL INFORMATION:

US-08-273-146-67 ; Sequence

67

7, Application US/08273146 5855885

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TOPOLOGY: 1;
MOLECULE TYPE:
US-08-273-146-67
                                                                                                                                                                                                                                                                                                     TELEPHONE: 301-984-800
TELEFAX: 301-230-0158
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
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APPLICANT: Kenten, John H.
APPLICANT: Martin, Mark T.
APPLICANT: Titmas, Richard C.
APPLICANT: Williams, Richard C.
APPLICANT: Williams, Richard O.
TITLE OF INVENTION: The Isolation and Production of
TITLE OF INVENTION: Catalytic Antibodies using Phage Technology
NUMBER OF SEQUENCES: 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FOR COMPATION OF THE PROPERTIES OF THE 
                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 09
TELECOMMUNICATION INFORMATION:
TELEPHONE: 301-984-8000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: Ryan, John W.
REGISTRATION NUMBER: 33,771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 67 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/OFILING DATE: 14-JUL-1994 CLASSIFICATION: 435
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ZIP: 20852
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CITY: Rockville
STATE: MD
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McCafferty, John
Chiswell, David
Darsley, Michael J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E: IGEN, Inc.
1530 East Jefferson St.
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Query Match

100.0%;

Score 39;

DВ 2:

Length 67;

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                                                                                        RESULT 3
US-08-273-146-71
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                                                         Sequence 71, Application US/08273146 Patent No. 5855885
                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                  Matches
                        GENERAL INFORMATION:
APPLICANT: Smith, Rodger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 35, Application Patent No. 5977322
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
Matches 7; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTY A. 111-3834
ZIP: 94111-3834
COMPUTER REALABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: IBM PC compatible
TYPEM: PC-DOS/MS-DOS
TYPEM: PC-DOS/MS-DOS
TYPEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (415) 576-03
           APPLICANT:
                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS: LENGTH: 97 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 02
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 60/000,250 FILING DATE: 15-JUN-1995 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compation operating SYSTEM: PC-DC SOFTWARE: Patentin Relaction DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 61 FILING DATE: 14-JUN-1995 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Marks, James D. APPLICANT: Schier, Robert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
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                                                                                                                                                    48 GKNNRPS 54
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                                                                                                                                                                                                                 Local Similarity es 7; Conserv
                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Hunter, Tom
REGISTRATION NUMBER: 38,498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 13 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/665,202
                                                                                                                                                                                  1 GKNNRPS 7
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                                                                                                                                                                                                                                                                                                                                                        amino acid
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        McCafferty, John
                                                                                                                                                                                                                                                                                                                                                                                                                   (415)
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                                                                                                                                                                                                                 Conservative
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Pred. No. 0.61;
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                                                                                                                                                                                                                                           DB 2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; MOLECULE TYPE: protein US-08-273-146-71
                                                                                                                                                                                                                                                                   Sequence 2, Application US/08793450 Patent No. 6312690 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
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Matches 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
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                                                                                                                                                        APPLICANT: EDELMAN, I
APPLICANT: MARGARITI
APPLICANT: KACZOREK,
APPLICANT: CHAABIHI,
TITLE OF INVENTION: N
TITLE OF INVENTION: NUMBER OF SEQUENCES:
 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Ryan, John W.
REGISTRATION NUMBER: 33,771
REFERENCE/DOCKET NUMBER: 09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: The Isolation and Production of TITLE OF INVENTION: Catalytic Antibodies using Phage Technology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
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                                  COUNTRY: UZIP: 22202
                                                                   STATE:
                                                                                 CITY:
                                                                                         ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTAD ADDRESSEE: P.C. STREET: 1755 SOUTH JEFFERSON DAVIS HIGHWAY, SUITE 400
                                                                                                                                                                                                                                                                                                                                                                                 43 GKNNRPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 1. CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                              1 GKNNRPS 7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/08/273,146
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                                                                                                                                                                                                       KACZOREK, MICHEL CHAABIHI, HASSAN
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                                                                                                                                                                                                                                                      EDELMAN, LENA
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Martin, Mark T.
Titmas, Richard C.
Williams, Richard O.
Williams, Richard O.
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301-230-0158
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Darsley, Michael J.
Fitzgerald, Kevin
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                                                                                                                          OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT
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Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 16, Application US/08652816A Patent No. 5872215
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TELEFAX: 703-413-2220
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION: NAME: OBLON, NORMAN F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Specific TITLE OF INVENTION: methods. NUMBER OF SEQUENCES: 53 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION: 703-413-3000
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                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 9125579.8
FILING DATE: 02-DEC-1991
                                                                                                                                                                                     FILING DATE: 23-MAY-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 91
FILING DATE: 02-DEC-1991
                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Relaction DATA:
                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Osbourn, JK
APPLICANT: Allen, DJ
APPLICANT: McCafferty, JG
                                                   FILING DATE: 24-MAR-PRIOR APPLICATION DATA:
                                                                                                              PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                               STATE: I COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: OBLON, NORMAN F. REGISTRATION NUMBER: 2
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                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/652,816A FILING DATE: 23-MAY-1996
                 APPLICATION NUMBER: FILING DATE: 23-SE
                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                   Illinois
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                                                                                                                                                                                                                                                                                                                                                                                               United States of America
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                                                                                                                                                                                                                                                                                                     PatentIn Release #1.0, Version #1.25 (EPO)
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                                                                        24-MAR-1992
               23-SEP-1992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FR 94/10566
                                   GB 9206372.6
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; Patent No. 5
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Best Local Similarity
                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/000,238
APPLICATION NUMBER: US 60/000,238
FILLING DATE: 14-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/000,250
FILLING DATE: 15-JUN-1995
ATTORNEY/ACENT INFORMATION:
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INFORMATION FOR SEQ ID NO: 1
           NAME: Hutter, Tom
REGISTARIOR NUMBER: 38,498
REFERENCE/DOCKET NUMBER: 02
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Marks, James D. APPLICANT: Schier, Robert
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                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0
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CITY: San Francisco
STATE: California
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FILING DATE: 02-DEC-1992
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                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: Townsend and Townsend and Crew LLP STREET: Two Embarcadero Center, Eighth Floor
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(415) 576-0300
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Pred. No. 0.
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                                            Best Local Similarity Matches 7; Conserv
                                                                        Query Match
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Patent No. 6312690
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                                                                                                                                                                                                                                REGISTRATION NUMBER: 24,618
REFERENCE/DOCKET NUMBER: 660
TELECOMMUNICATION INFORMATION:
TELEPHONE: 703-413-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            )8-793-450-6
                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 238 amino acids
                                                                                                                                MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/793,450 FILING DATE: 03-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: FR 94/10566
FILING DATE: 02-SEP-1994
ATTORNEY/AGENT INFORMATION:
NAME: OBLOW, NORMAN F.
                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 536 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: U
ZIP: 22202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: ARLINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT ADDRESSEE: P.C.
STREET: 1755 SOUTH JEFFERSON DAVIS HIGHWAY, SUITE 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      48 GKNNRPS 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH:
               GKNNRPS 7
amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MARGARITTE, CHRISTEL
KACZOREK, MICHEL
CHAABIHI, HASSAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        109 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Floppy disk
                                                                                                                                protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MONOCLONAL RECOMBINANT ANTI-RHESUS D
                                                        100.0%; Score 39; 100.0%; Pred. No.
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                                                      Pred. No. 1.5;
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Pred. No.
                                        Mismatches
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                                                                     DB 4;
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US-09-260-527-1
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US-09-260-527-3
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TYPE: PRT
                                                                     Matches
                                                                                      Query Match
Best Local
                                                                                                                                                                                                                                                                                                         SEQ ID NO 1
LENGTH: 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL
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                                                                                                                                                                              OTHER INFORMATION: R
OTHER INFORMATION: R
OTHER INFORMATION: R
OTHER INFORMATION: E
                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: KNOX, J.P.
APPLICANT: Wilkelsen, J.D.
APPLICANT: Willats, W. G.
TITLE OF INVENTION: ANTIBODY
FILE REFERENCE: DYOUT9.001AUS
CURRENT APPLICATION NUMBER: US/09/260,527A
CURRENT FILING DATE: 1999-02-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity Matches 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3, Application US/09260527A Patent No. 6228599
                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Knox, J.P.
APPLICANT: Mikkelsen, J.D.
APPLICANT: Willats, W. G.
TITLE OF INVENTION: ANTIBODY
FILE REFERENCE: DYOULS 001AUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/260,527A CURRENT FILING DATE: 1999-02-26 NUMBER OF SEQ ID NOS: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                       ORGANISM: UNKNOWN
                                                                                                                                                                                                                                                                                          TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: Anti-homogalacturonan specific antibodies selected OTHER INFORMATION: from a naive phage display library known as the OTHER INFORMATION: Synthetic scFv Library (#1) from the Centre for OTHER INFORMATION: Protein Engineering, MRC Centre, Cambridge, UK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: UNKNOWN
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203 GKNNRPS 209
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                                                                   Local Similarity les 7; Conser
                               1 GKNNRPS 7
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                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                            for Windows Version 3.0
                                                                                                                                                                     Anti-homogalacturonan specific antibodies from a phage display library known as the Synthetic scFv Library (#1) from the Centre for Protein Engineering, MRC Centre, Cambridge, UK.
                                                                                  100.0%;
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                                                                                  Score 39; DB 4; Length 280; Pred. No. 1.8;
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Pred. No.
                                                                   Mismatches
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1.7;
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US-09-079-029-10
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                                                                                                                                                                                                                                                                                                                                   Sequence 10, Application US/09079029 Patent No. 6342369
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Best Local
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                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: 650/952-9881 INFORMATION FOR SEQ ID NO: 9:
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COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                     APPLICANT: Adams, Camilia W.
APPLICANT: Ashkenazi, Avi J.
APPLICANT: Chuntharapai, Anan
APPLICANT: Kim, Kyung J.
TITLE OF INVENTION: Apo-2 Receptor
NUMBER OF SEQUENCES: 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 35,600
REFERENCE/DOCKET NUMBER: P1101R2
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: Marschang, Diane L.
REGISTRATION NUMBER: 35,6
                                                                                                                                                                                     CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Ashkenazi, Avi J.
APPLICANT: Chuntharapai, Anan
APPLICANT: Kim, Kyung J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Apo-2 Receptor NUMBER OF SEQUENCES: 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                              223 GKNNRPS 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 1 DNA "",
CITY: South San Francisco
                                                                                               COUNTRY:
                                                                                                                                CITY: South San Francisco
                                                                                                                                                   STREET:
                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match 100.0%; Score 39; DB Local Similarity 100.0%; Pred. No. 1.9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: 650/225-5416
TELEFAX: 650/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/09/079,029 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 GKNNRPS 7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 94080
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                                                                                94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Amino Acid
                                                                                                               California
                                                                                                                                                   E: Genentech, Inc.
1 DNA Way
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Ashkenazi, Avi J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 4; Length 309;
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US-09-240-274-48
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; Sequence 47, Applicat
; Patent No. 6255455
; GENERAL INFORMATION:
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                                                                         ; GENERAL INFORMATION:
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                                                                                         Sequence 48, Application US/09240274
Patent No. 6255455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EARLIER APPLICATION NUMBER: 60/028,550
EARLIER FILING DATE: 1996-10-11
NUMBER OF SEQ ID NOS: 224
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 47
                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
               APPLICANT: Siegel, Donald L.
TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/240,274
CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER FILING DATE: 1998-04-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
Matches 7; Conserva
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FILE REFERENCE: 09596-42U2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Siegel, Donald L.
TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF
FILE REFERENCE: 09596-4202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: ant1-Rh(D) chain J01
                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 106
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: Amino Acids
TOPOLOGY: Linear
-079-020-7
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TELECOMMUNICATION INFORMATION:
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NAME: Marschang, Diane L
REGISTRATION NUMBER: 35,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/079,
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                                                                                                                                                                                                             47 GRNNRPS 53
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                                                                                                                                                                                                                                               1 GKNNRPS 7
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100.0%; Pred. No. 2;
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 Mismatches

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                                                                                                                                                                                                                                                                                                                       Length 106;
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                                                                                                                                                                                                                                                                                   Gaps
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APPLICANT: Siegel, Donald L.

TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL

TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF

FILE REFERENCE: 09596-42U2

CURRENT APPLICATION NUMBER: US/09/240,274

CURRENT FILING DATE: 1999-01-29

EARLIER APPLICATION NUMBER: 60/081,380

EARLIER FILING DATE: 1998-04-10

EARLIER FILING DATE: 1998-04-10

EARLIER APPLICATION NUMBER: 60/028,550

EARLIER APPLICATION NUMBER: 05/028,550

EARLIER APPLICATION NUMBER: 05/028,550

EARLIER FILING DATE: 1996-10-11

NUMBER OF SEQ ID NOS: 224

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 49

LENGTH: 104

TYPE: PRT
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CURRENT FILING DATE: 1999-01-29
EARLIER APPLICATION NUMBER: 60/081,380
EARLIER FILING DATE: 1998-04-10
EARLIER APPLICATION NUMBER: 60/028,550
EARLIER FILING DATE: 1996-10-11
NUMBER OF SEQ ID NOS: 224
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 48
SEQ ID NO 48
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US-09-240-274-49
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                                                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; OTHER INFORMATION: anti-Rh(D) chain J02 US-09-240-274-48
                                                                                                                                                  Sequence 4, Application US/08305683A
Patent No. 5646041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 49, Application US/09240274
Patent No. 6255455
GENERAL INFORMATION:
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Best Local Similarity
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Best Local Similarity
                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: anti-Rh(D) chain J04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 106
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                            APPLICANT:
APPLICANT:
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                    TITLE OF INVENTION:
NUMBER, OF SEQUENCES:
                                                                          APPLICANT:
                                                          APPLICANT:
                                                                                                                                                                                                                                                                          47 GKNSRPS 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                47 GRNNRPS 53
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                                                      HARFELDT, Elisabeth
LAKE, Philip
NOTTAGE, Barbara
OSTBERG, Lars G.
                                                                                                                                                                                                                                                                                                                                                    Conservative
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85.7%;
LATS G.
MONOCLONAL ANTIBODY TO HERPES SIMPLEX
VIRUS AND CELL LINE PRODUCING THE SAME
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85.7%;
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Pred. No. 2
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Pred. No. 6.
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Search completed: June 12, 2002, 11:24:30 Job time: 265 sec
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Best Local Similarity
Watches 6; Conserve
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                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION. 7.7

PRIOR APPLICATION NUMBER: US 07/759,279

APPLICATION NUMBER: US 07/759,279

APPLICATION NUMBER: US 07/759,279

FILING DATE: 13-SEP-1991

ATTORNEY/AGENT INFORMATION:

NAME: Liebeschuetz, Joe

REGISTRATION NUMBER: 37,505

REFERENCE/DOCKET NUMBER: 11823-0052:

TELECOMMUNICATION INFORMATION:

TELEPAY: (415) 326-2420

TELEPAY: (415) 326-2422

INFORMATION FOR SEQ ID NO: 4:

SEQUENCE CHARACTERISTICS:

LENGTH: 131 amino acids

myrno: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                    LENGTH: 131 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, VICURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/305,683A
FILING DATE: 13-SEP-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 3/2 CITY: Palo Alto
STATE: California
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                                                                                                  71 GDNNRPS 77
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
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                                                                                                                                                                                                                                                                                                  protein
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GenCore version 4.5 Copyright (c) 1993 - 2000 Comp

Compugen Ltd

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Run on:
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Maximum DB
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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1 GSRDSSGIHVV 11
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2: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1981.DAY: *
3: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1981.DAY: *
3: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1982.DAT: *
3: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1983.DAY: *
5: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1985.DAT: *
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7: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1985.DAT: *
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AAG62974
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AAG65309
                                                                                                  AAG62980
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Anti-IL-18 antibod
Anti-IL-18 antibod
Anti-IL-18 antibod
Anti-IL-18 antibod
Complementarity de
Complementarity de
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Complementarity de
Light chain VL3.5
Amino acid sequenc
                                                                                                                                                                                                                                                                                                  Description
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Anti-adipocyte mon Amino acid sequenc	552	22	109 115		39 39
TGF beta-1/TGF bet	555	18	109		39
Amino acid sequenc	296	22	108	0	39
Amino acid sequenc	94	22	108	0	39
Amino acid sequenc		22	108	0	39
Anti-adipocyte mon		22	106	0	. 39
Anti-adipocyte mon	AAU02518	22	106	70.9	39
	AAG62998	22	11	0	39
Complementarity	AAG62982	22	11	0	39
Complementarity	AAG62972	22	11	0	39
Arabidopsis that	AAG22953	21	453	4.	41
Arabidopsis	AAG22954	21	389	4	41
Arabidopsis	AAG22955	21	309		41
Single chain	AAW83323	20	312	σ.	42
Single chain Apo-	AAW83322	20	309	76.4	42
PAM1 single chain	AAE02185	22	282	76.4	42
PAM2 single	AAE02186	22	280	76.4	42
Human ScFv	AAW49693	19	254	76.4	42
Human WSX re	AAW24061	18	249	76.4	42
Human ScFv	AAW49692	19	239	76.4	42
Human ScFv2	AAW49691	19	237	76.4	42
Human ScFv1	AAW49690	19	236	76.4	42
Human ScFv5	AAW49694	19	229	76.4	42
Amino acid s	AAG62947	22	112	76.4	42
	AAU02513	22	109	76.4	42
Anti-adipocyte mon	AAU02509	22	109	76.4	42
Anti-adipocyte mon	AAU02504	22	109		42
Anti-TGF beta-2 sc	AAW15525	18	109	σ.	42
pecific a	AAW19884	18	109		
Amino acid sequenc	AAG62939	22	108		42
Amino acid sequenc	AAG62937	22	108	76.4	42
	AAG62933	22	108	76.4	42
Human antibody clo	AAY44616	21	108	76.4	42

# ALIGNMENTS

RESULT AAG65304

AAG65304 standard; protein; ll AA

AAG65304;

30-NOV-2001 (first entry)

Anti-IL-18 antibody 2E1 light chain CDR3 fragment.

II-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective; nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant; immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.

Homo sapiens.

WO200158956-A2

16-AUG-2001.

09-FEB-2001; 2001WO-US04170

10-FEB-2000; 2000US-0181608

(BADI ) BASF AG.

Ghayur T, Duncan AR, Lennard Dixon RW, Roguska M, White M, Brocklehurst SM, Mankovich J, Labkovsky B, Shorrock CP, Salfeld J; Thompson JE;

WPI; 2001-550020/61.

Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders,

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Best Local
Example 2; Page 38; 91pp; English
                                           Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders, neurological disorders, heart failure, myocardial infarction, and
                                    autoimmune diseases
                                                                                                                       N-PSDB; AAH47512
                                                                                                                                                                                                                                                                                                     09-FEB-2001; 2001WO-US04170.
                                                                                                                                                                        Lennard SN;
                                                                                                                                                                                                                                      (BADI ) BASF AG
                                                                                                                                                                                                                                                                      10-FEB-2000; 2000US-0181608
                                                                                                                                                                                                                                                                                                                                         16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                        WO200158956-A2
                                                                                                                                                                                                                                                                                                                                                                                                                              II-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective; nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant; immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.
                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Anti-IL-18 antibody 2E1 light chain sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                inflammatory disorders (e.g., rheumatoid arthritis), rother's disease, (e.g., Huntington's Chorea, Parkinson's disease, neurological disorders (e.g., Huntington's Chorea, Parkinson's disease, hat stroke), heart failure, myocardial infarction, autoimmune diseases such as autoimmune hepatitis and autoimmune neutropaenia, and mental disorders (e.g., depression and schizophrenia). Treatment with an anti-IL-18 antibody may occur before, concurrent, or after administration of a second agent selected from an antibody, or fragment, capable of binding human IL-12, methotrexate, anti-tumor necrosis factor, corticosteroids, cyclosporin, rapamycin, FK506, and non-steroidal anti-inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAG65309 standard; protein; 109 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention provides isolated antibodies, or antigen-binding portions, that are capable of binding to human interleukin-18 (IL-18). The antibodies may be used to inhibit human IL-18 activity in, and treat a disorder where IL-18 is detrimental than a number of the subject suffering from,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             chain CDR3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     neurological disorders, heart failure, myocardial infarction, and
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                                                                                                                                                                                                         Dixon RW,
                                                                                                                                                                                    Dixon RW, Roguska
Brocklehurst SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11 AA;
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Mankovich
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                                             myocardial infarction, and
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Shorrock CP,
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Thompson JE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CC The invention provides isolated antibodies, or antigen-binding portions, CC that are capable of binding to human interleukin-18 (II-18). The CC antibodies may be used to inhibit human II-18 activity in, and treat a CC disorder where II-18 is detrimental in, a human subject suffering from, CC inflammatory disorders (e.g., rheumatold arthritis, Crohn's disease, and costcoarthritis), neurological disorders (e.g., huntington's chorea, parkinson's disease, Alzheimer's disease, and CC stroke), heart failure, myocardial infarction, autoimmune diseases such CC (e.g., depression and schizophrenia). Treatment, and mental disorders CC (e.g., depression and schizophrenia). Treatment with an anti-II-18 antibody and occur before, concurrent, or after administration of a CC antibody may occur before, concurrent, or after administration of a CC antibody may occur before, and antibody, or fragment, capable of binding CC unuman II-12, methotrexate, anti-tumor necrosis factor, corticosteroids, cyclosporin, rapamycin, FK506, and non-steroidal anti-Inflammatory CC agents. The present sequence represents an anti-II-18 antibody 2E1 light CC chain sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                        Example 2; Page 88; 91pp; English.
                                                                                                       Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders, neurological disorders, heart failure, myocardial infarction, and
                                                                                                                                                                                 WPI; 2001-550020/61.
N-PSDB; AAH47512.
                                                                                                autoimmune diseases
                                                                                                                                                                                                                                                  Ghayur T, Dixon RW,
Duncan AR, Brockleh
                                                                                                                                                                                                                                 Lennard SN;
                                                                                                                                                                                                                                                                                                                             10-FEB-2000; 2000US-0181608
                                                                                                                                                                                                                                                                                                                                                            09-FEB-2001; 2001WO-US04170.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IL-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective; nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant; immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.
                                                                                                                                                                                                                                                                                                                                                                                                16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200158956-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Anti-IL-18 antibody 2E1 light chain sequence.
                                                                                                                                                                                                                                                                                               (BADI ) BASF AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAG65353;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAG65353 standard; protein; 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               chain sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GSRDSSGIHVV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gsrdssgihvv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                              Brocklehurst SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                             Roguska M, White M, st SM, Mankovich J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 55;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AΑ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 22;
0.0043;
                                                                                                                                                                                                                                             Labkovsky B,
Shorrock CP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                           Salfeld J;
Thompson JE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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The invention provides isolated antibodies, or antigen-binding portions, that are capable of binding to human interleukin-18 (IL-18). The antibodies may be used to inhibit human IL-18 activity in, and treat a

inhibit human IL-18 activity in,

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Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          second agent selected from an antibody, or fragment, capable of binding human II-12, methotrexate, anti-tumor necrosis factor, corticosteroids, cyclosporin, rapamycin, FK506, and non-steroidal anti-inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               stroke), heart failure, myocardial infarction, autoimmune diseases such as autoimmune hepatitis and autoimmune neutropaenia, and mental disorders (e.g., depression and schizophrenia). Treatment with an anti-IL-18 antibody may occur before, concurrent, or after administration of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             disorder where IL-18 is detrimental in, a human subject suffering fr inflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease,
AAG62970-AAG63005 represent complementarity determining region 3 (CDR3) of VL and VH chains of antibodies of the invention. The specification describes a mixture or panel of 5 different specific binding members, each comprising an antibody VH and/or VL variable domain and capable, when displayed on the surface of filamentous bacteriophage particles or in the case of a specific binding member comprising the D5 VH and/or VL variable domain when bound to human serum amyloid protein, to pass through a mammalian blood brain barrier (BBB). The panel is useful for the selection of specific binding members with a desired property such
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-NOV-2000; 2000WO-GB04501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     endothelial cell; brain cell antigen; inflammation; adhesion molecule;
transferrin receptor; neurological disease; Alzheimer's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Complementarity determining region 3 (CDR3) of VL chain of clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAG62970 standard; peptide; 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    agents.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         inflammatory bowel disease, and osteoarthritis), neurological disorders (e.g., Huntington's chorea, Parkinson's disease, Alzheimer's disease, a
                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 76; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                 molecules and treating neurological diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mixture or panel of antibodies for selecting specific binding members that cross the blood brain barrier, for use in delivering different
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-398131/42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-JUN-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Antibody; light chain; VL; amyloid protein; blood brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 GSRDSSGIHVV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gsrdssgihvv 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     disease; AIDS-related dementia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence represents an anti-IL-18 antibody 2El light
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               109 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Osbourn J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99US-0170599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ward G, Miller
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 55; DB 22;
Pred. No. 0.0043;
Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     epilepsy; brain injury.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and
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to cross BBB, ability to bind

endothelial cells or other

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Query Match
Best Local Similarity
----has 9; Conserve
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAG62974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cell antigen, ability to bind areas of inflammation in the brain or BBB breakdown or ability to bind intracellular adhesion molecules and to bit transferrin receptor. The antibodies are useful in diagnosis, prophylaxi and treatment of human or animal body, including neurological diseases, such as Alzheimer's disease, prion disease, AIDS-related dementia, epilepsy and traumatic brain injury and any diseases involving
as ability to cross BBB, ability to bind endothelial cells or other brain cell antigen, ability to bind areas of inflammation in the brain or BBB breakdown or ability to bind intracellular adhesion molecules and to bind transferrin receptor. The antibodies are useful in diagnosis, prophylaxis and treatment of human or animal body, including neurological diseases, such as Alzheimer's disease, prion disease, AIDS-related dementia, epilepsy and traumatic brain injury and any diseases involving
                                                                                                                                         AAG62970-AAG63005 represent complementarity determining region 3 (CDR3) of VL and VH chains of antibodies of the invention. The specification describes a mixture or panel of 5 different specific binding members, each comprising an antibody VH and/or VL variable domain and capable, when displayed on the surface of filamentous bacteriophage particles or in the case of a specific binding member comprising the D5 VH and/or VL variable domain when bound to human serum amyloid protein, to pass through a mammalian blood brain barrier (BBB). The panel is useful for the selection of specific binding members with a desired property such the selection of specific binding members with a desired property.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Antibody; light chain; VL; amyloid protein; blood brain barrier; endothelial cell; brain cell antigen; inflammation; adhesion molecule; transferrin receptor; neurological disease; Alzheimer's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAG62974 standard; peptide; 11 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 76; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                         molecules and treating neurological diseases
                                                                                                                                                                                                                                                                                                                                                                                                          Mixture or panel of antibodies for selecting specific binding members that cross the blood brain barrier, for use in delivering different
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-NOV-2000; 2000WO-GB04501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200144300-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   prion disease; AIDS-related dementia; epilepsy; brain injury.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Complementarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-OCT-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      inflammation occurring within the brain or central nervous system
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Webster C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 SRDSSGIHVV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 srdssgnhyv 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        determining
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  76.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ward G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        region 3 (CDR3) of VL chain of clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 42;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Miller K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0.097;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       prophylaxis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             G73.
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cc each comprising an antibody VH and/or VI variable domain and capable, CC when displayed on the surface of filamentous bacteriophage particles or CC in the case of a specific binding member comprising the D5 VH and/or VI variable domain when bound to human serum amyloid protein, to pass CC through a mammalian blood brain barrier (BBB). The panel is useful for CC the selection of specific binding members with a desired property such CC as ability to cross BBB, ability to bind endothelial cells or other brain CC cell antigen, ability to bind areas of inflammation in the brain or BBB breakdown or ability to bind areas of inflammation in the brain or BBB creakdown or ability to bind intracellular adhesion molecules and to bind cand treatment of human or animal body, including neurological disease, such as Alzheimer's disease, prion disease, AIDS-related dementia, CC such as Alzheimer's disease, prion disease, AIDS-related dementia, CC inflammation occurring within the brain or central nervous system.
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AAG62976
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Best Local :
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Seguence
                                                                                                                                                                                                                                                                                   AAG62970-AAG63005 represent complementarity determining region 3 (CDR3) of VL and VH chains of antibodies of the invention. The specification describes a mixture or panel of 5 different specific binding members,
                                                                                                                                                                                                                                                                                                                                                                    Claim 1; Page 76; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                     Mixture or panel of antibodies for selecting specific binding members that cross the blood brain barrier, for use in delivering different
                                                                                                                                                                                                                                                                                                                                                                                                             molecules and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-398131/42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Antibody; light chain; VL; amyloid protein; blood brain barrier; endothelial cell; brain cell antigen; inflammation; adhesion molecule; transferrin receptor; neurological disease; Alzheimer's disease; prion disease; AIDS-related dementia; epilepsy; brain injury.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAG62976;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            inflammation occurring within the brain or central nervous system.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Osbourn J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
 ΑĄ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                         treating neurological diseases
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90.08;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     region 3 (CDR3) of VL chain of clone G76.
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Pred. No. 0.097;
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Query Matçh

76.48;

Score 42;

DB

22;

Length 11;

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srdssgnhvv SRDSSGIHVV 11 Matches

Conservative

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Mismatches

Indels

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AAG62980
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Best Local
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                                                                                                                variable domain when bound to human serum amyloid protein, to pass through a mammalian blood brain barrier (BBB). The panel is useful for the selection of specific binding members with a desired property such as ability to cross BBB, ability to bind endothelial cells or other brain cell antigen, ability to bind areas of inflammation in the brain or BBB breakdown or ability to bind intracellular adhesion molecules and to bind transferrin receptor. The antibodies are useful in diagnosis, prophylaxis and treatment of human or animal body, including neurological diseases, such as Alzheimer's disease, prion disease, AIDS-related dementia, epilepsy and traumatic brain injury and any diseases involving inflammation occurring within the brain or central nervous system.
                                                                                                                                                                                                                                                                                                           AAG62970-AAG63005 represent complementarity determining region 3 (CDR3) of VL and VH chains of antibodies of the invention. The specification describes a mixture or panel of 5 different specific binding members, each comprising an antibody VH and/or VL variable domain and capable, when displayed on the surface of filamentous bacteriophage particles or in the case of a specific binding member comprising the D5 VH and/or VL
                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1; Page 76; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            molecules and treating neurological diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mixture or panel of antibodies for selecting specific binding members that cross the blood brain barrier, for use in delivering different
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antibody; light chain; VL; amyloid protein; blood brain barrier; endothelial cell; brain cell antigen; inflammation; adhesion mol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Webster C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-DEC-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    transferrin receptor; neurological disease; Alzheimer's disease; prion disease; AIDS-related dementia; epilepsy; brain injury.
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Local Similarity
nes 9; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
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                76.4%;
90.0%;
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              Score 42; I
Pred. No. 0.
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0; Mismatches
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                                 DB
                .097;
                                 22;
                               Length 11;
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PAC XXX
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AAR22572
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                                                     RESULT
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                       through a mammalian blood brain barrier (BBB). The panel is useful for the selection of specific binding members with a desired property such as ability to cross BBB, ability to bind endothelial cells or other brain cell antigen, ability to bind areas of inflammation in the brain or BBB breakdown or ability to bind intracellular adhesion molecules and to bind transferrin receptor. The antibodies are useful in diagnosis, prophylaxis and treatment of human or animal body, including neurological diseases, such as Alzheimer's disease, prion disease, AIDS-related dementia, epilepsy and traumatic brain injury and any diseases involving inflammation occurring within the brain or central nervous system.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAG62970-AAG63005 represent complementarity determining region 3 (CDR3) of VL and VH chains of antibodies of the invention. The specification describes a mixture or panel of 5 different specific bunding members, each comprising an antibody VH and/or VL variable domain and capable, when displayed on the surface of filamentous bacteriophage particles or in the case of a specific binding member comprising the D5 VH and/or VL variable domain when bound to human serum amyloid protein, to pass
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 76; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mixture or panel of antibodies for selecting specific binding members that cross the blood brain barrier, for use in delivering different
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-DEC-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     molecules and treating neurological diseases
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                                                                                                                                                                                                                                                                         Sequence
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                 AAR22572 standard; Protein; 101 AA.
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                                                                                                          srdssgnhvv 11
                                                                                                                                             SRDSSGIHVV 11
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                                                                                                                                                                                                                                                                           11 AA;
                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
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                                                                                                                                                                                                  76.4%;
90.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ward G, Miller K;
                                                                                                                                                                                   0;
                                                                                                                                                                                                    Score 42; DB 22
Pred. No. 0.097;
                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                     DB 22;
                                                                                                                                                                                                                   Length 11;
                                                                                                                                                                                   0;
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AAG62943 ID AAG6

AAG62943 standard; Protein; 107 AA

0

RESULT 10

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Query Match
Best Local Similarity
Thehes 9; Conserv
В
                                                                                                                                                                           pCR was used to prepare a human scFV library from RNA from white blood cells from an unimmunised donor. Heavy chains from IgG and IgM antibodies were amplified separately. Four separate libraries were generated (IgG-K, IgG-lambda, IgM-K and IgM-Lambda). The purified scFv fragments were ligated into the phagemid pHEN1 for purified scFv fragments were ligated into the phagemid pHEN1 for the captions were then subjected to affinity selection for binding to phox:BSA by selection on tubes followed by analysis by ELLSA. Of Genes analysed, 43 showed binding to both phox:BSA and BSA. There were designated BSA binders. Thirteen of fourteen clones sequenced had the same sequence, the VH derived from a human VH3 family gene (AAR22571) and the VL from a human V lambda 1 family gene and a human VH family gene and a human VH family gene and a human VH family gene (Coxazolone binder). This sequence revealed a VH derived from a human VH family gene (AAR22570).

Coxazolone binder). This sequence revealed a VH derived from a family gene (AAR22570).
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19-OCT-1990;
12-NOV-1990;
06-MAR-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rd; bacteriophage; gene III; filamentous; phagemid; capsid; coat;
pilus; g3p; binding; adsorption; gene VIII; diverse repertoire;
specific binding pairs; replicable genetic display package; human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          display package.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         producing members of specific binding pairs - by expression in recombinant host cells with a secreting replicable genetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Jackson RH, Holliger K Winter GP, Bonnert TP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-JUL-1991;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Light chain VL3.5 from BSA binding scFv fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-MAY-1992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              Table 11; Page 152; 109pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1992-056862/07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   McCafferty J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-MAY-1991;
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                                                                                                                                    Sequence
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                                                                                                                                                                     See also AAR21260-307,
89 srdssgnhvv 98
                             2 SRDSSGIHVV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MED RES
                                                                                                                                        101 AA;
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                                                             Conservative
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91GB-0004744
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90GB-0022845.
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                                                                        76.4%;
90.0%;
                                                                                                                                                                     309-312, AAR22450, AAR22565, AAR22567-81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Johnson
Marks
                                                             0;
                                                                          Score 42; DB Pred. No. 1.3;
                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JD,
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                                                                                          DB 13; Length 101;
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                                                                Gaps
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RESULT 1
AAG62969
ID AAG6
XX
AC AÅG6
XX
DT 01-C
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Best Local Similarity
                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                           binding member comprising the D5 VH and/or VL variable domain when bound to human serum amyloid protein, to pass through a mammalian blood brain barrier (BBB). The panel is useful for the selection of specific binding members with a desired property such as ability to cross BBB, ability to bind endothelial cells or other brain cell antigen, ability to bind areas of inflammation in the brain or BBB breakdown or ability to bind intracellular adhesion molecules and to bind transferrin receptor. The antibodies are useful in diagnosis, prophylaxis and treatment of human or animal body, including neurological diseases, such as Alzheimer's disease, prion disease, AlDS-related dementia, epilepsy and traumatic brain injury and any diseases involving inflammation occurring within the brain or central nervous system.
                   01-OCT-2001
                                                          AAG62969;
                                                                                        AAG62969 standard;
                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and/or VL variable domain and capable, when displayed on the surface of filamentous bacteriophage particles or in the case of a specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence represents an antibody variable light chain (VL) fragment. The fragment is used to produce a mixture or panel of 5 different specific binding members, each comprising an antibody VH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mixture or panel of antibodies for selecting specific binding members that cross the blood brain barrier, for use in delivering different molecules and treating neurological diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 96; 109pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB; AAH42387
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                                                                                                                             11
                                                                                                                                                                                   87 srdssgnhvv 96
                                                                                                                                                                                                                        2 SRDSSGIHVV 11
                                                                                                                                                                                                                                                               9;
                                                                                                                                                                                                                                                                                                                                                        107 AA;
                                                                                                                                                                                                                                                             Conservative
               (first entry)
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                                                                                        Protein; 107 AA.
                                                                                                                                                                                                                                                                              76.48;
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                                                                                                                                                                                                                                                                          Score 42; DB 22; Length 107; Pred. No. 1.4;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CC different specific binding members, each comprising an antibody VH
CC and/or VL variable domain and capable, when displayed on the surface
CC of filamentous bacteriophage particles or in the case of a specific
CC binding member comprising the D5 VH and/or VL variable domain when
CC bond to human serum amyloid protein, to pass through a mammalian
CC blood brain barrier (BBB). The panel is useful for the selection of
CC specific binding members with a desired property such as ability to
CC cross BBB, ability to bind endothelial cells or other brain cell antigen,
CC ability to bind intracellular adhesion molecules and to bind transferrin
CC ability to bind intracellular adhesion molecules and to bind transferrin
CC receptor. The antibodies are useful in diagnosis, prophylaxis and
CC treatment of human or animal body, including neurological diseases, such
CC as Allzhamer's disease, prion disease, AIDS-related dementia, epilepsy
CC and traumatic brain injury and any diseases involving inflammation
CC occurring within the brain or central nervous system.
                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Human antibody clone NHS76 VL; VL; light chain variable region; cytostatic; malignant tumour; human histone H1; antibody; intracellular antigen; diagnosis; treatment; tumour; cervical; ovarian;
                                                                                      Human antibody clone NHS76 VL.
                                                                                                                              07-APR-2000
                                                                                                                                                                                                   AAY44616 standard; Protein; 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence represents an antibody variable light chain (VL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; Page 109; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     molecules and treating neurological diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mixture or panel of antibodies for selecting specific binding members that cross the blood brain barrier, for use in delivering different
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Webster C, Osbourn J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13-DEC-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Amino acid sequence of variable light chain fragment of clone D5
                                                                                                                                                                                                                                                                                                  87 srdssgnhvv 96
                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                       2 SRDSSGIHVV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001-398131/42.
                                                                                                                                                                                                                                                                                                                                                                             9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        107 AA;
                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9908-0170599
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                                                                                                                                                                                                                                                                                                                                                                                           76.4%;
90.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      is used to produce a mixture or panel of 5 ing members, each comprising an antibody VH
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                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                         Score 42;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                         Mismatches
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RESULT 13
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Best Local
                                                                                                                                                                                                                                                                                                 tches
                                                                                                                                                                                                                                                                                                                                                                           variable region. This is useful for targeting the necrotic centres of malignant tumours by binding to human histone H1 and other intracellular antigens. The specific binding members based on the CDRs (complementarity determining regions) of NHS76 can be used in diagnosis and treatment of tumours like cervical, ovarian, prostate, lung, liver, pancreatic, colon and stomach tumours. The antibody is labelled with functional labels such as toxins and enzymes which are capable of converting prodrugs into active drugs at the site of a tumour.
                                                                Antibody; light chain; VL; amyloid protein; blood brain barrier; endothelial cell; brain cell antigen; inflammation; adhesion molecule; transferrin receptor; neurological disease; Alzheimer's disease;
            WO200144300-A2
                                                                                                              Amino acid sequence of variable light chain fragment of clone G65.
                                                                                                                                          01-OCT-2001
                                                                                                                                                                  AAG62933;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim
                                   Homo sapiens
                                                         prion
                                                                                                                                                                                        AAG62933 standard; Protein; 108 AA
                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence is human antibody clone NHS76 light chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New specific binding members capable of binding antigen, useful in the treatment and diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB; AAZ49591.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Williams AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-JUL-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY
                                                                                                                                                                                                                                                  89
                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                                                                         2 SRDSSGIHVV 11
                                                                                                                                                                                                                                                  srdssgnhvv 98
                                                        disease; AIDS-related dementia;
                                                                                                                                                                                                                                                                                                Similarity 9; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fig 2; 70pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         lung;
                                                                                                                                                                                                                                                                                                                                                          108 AA;
                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                        (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98GB-0014383
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49..55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       liver;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /label= Complementarity_determining_region_2
88..98
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                                                                                                                                                                                                                                                                                                          76.4%;
90.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Holtet TL,
                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                          Score 42; DB 21; Length 108; Pred. No. 1.5;
                                                                                                                                                                                                                                                                                               Mismatches
                                                        epilepsy; brain injury
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Jackson H;
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AAG62937
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          fragment. The fragment is used to produce a mixture or panel of 5 different specific binding members, each comprising an antibody VH and/or VL variable domain and capable, when displayed on the surface of filamentous bacteriophage particles or in the case of a specific binding member comprising the D5 VH and/or VL variable domain when
27-NOV-2000; 2000WO-GB04501.
                                      21-JUN-2001.
                                                                                                               Homo sapiens
                                                                                                                                                    prion disease; AIDS-related dementia; epilepsy; brain injury
                                                                                                                                                                        transferrin receptor; neurological disease; Alzheimer's disease;
                                                                                                                                                                                        Antibody; light chain; VL; amyloid protein; blood brain barrier; endothelial cell; brain cell antigen; inflammation; adhesion mol
                                                                                                                                                                                                                                                 Amino acid sequence of variable light chain fragment of clone G73
                                                                                                                                                                                                                                                                                            01-OCT-2001
                                                                                                                                                                                                                                                                                                                                  AAG62937;
                                                                                                                                                                                                                                                                                                                                                                       AAG62937 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; Page 91; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mixture or panel of antibodies for selecting specific binding members that cross the blood brain barrier, for use in delivering different molecules and treating neurological diseases
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
9; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 within the brain or central nervous system.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 108
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                                                                                                                                                                                                                                                                                          (first entry)
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90.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ward G,
                                                                                                                                                                                                                                                                                                                                                                       108
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 42; I
Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                                       A
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1.5;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 108
                                                                                                                                                                                          adhesion molecule;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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13-DEC-1999;

99US-0170599

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RESULT 15
AAG62939
ID AAG629
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     fragment. The fragment is used to produce a mixture or panel of 5 different specific binding members, each comprising an antibody VH and/or VL variable domain and capable, when displayed on the surface of filamentous bacteriophage particles or in the case of a specific binding member comprising the D5 VH and/or VL variable domain when bound to human serum amyloid protein, to pass through a mammalian blood brain barrier (BBB). The panel is useful for the selection of specific binding members with a desired property such as ability to cross BBB, ability to bind endothelial cells or other brain cell antigen, ability to bind areas of inflammation in the brain or BBB breakdown or ability to bind intracellular adhesion molecules and to bind transferrin receptor. The antibodies are useful in diagnosis, prophylaxis and treatment of human or animal body, including neurological diseases, such
             Webster C,
                                                                                                                                                                                                                                                                 Antibody; light chain; VL; amyloid protein; blood brain barrier; endothelial cell; brain cell antigen; inflammation; adhesion molecule; transferrin receptor; neurological disease; Alzheimer's disease; prion disease; AIDS-related dementia; epilepsy; brain injury.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mixture or panel of antibodies for selecting specific binding members that cross the blood brain barrier, for use in delivering different molecules and treating neurological diseases \,
                                                                                                                                                                                                                                                                                                                                                                                               01-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         as Alzheimer's disease, prion disease, AIDS related dementia, epilepsy and traumatic brain injury and any diseases involving inflammation occurring within the brain or central nervous system.
                                                                                     13-DEC-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAG62939 standard; Protein; 108
                                                 (≪AMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
                                                                                                                         27-NOV-2000; 2000WO-GB04501
                                                                                                                                                            21-JUN-2001.
                                                                                                                                                                                                                                 Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence represents an antibody variable light chain (VL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 93; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-398131/42.
N-PSDB; AAH42381.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 SRDSSGIHVV 11
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               Osbourn J,
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               Miller K;
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2 SRDSSGIHVV 11 srdssgnhvv 97

Matches

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Conservative

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Mismatches

Indels

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XXCCCCCCCCCCCCCXXXX
                                                                                                                                           The present sequence represents an antibody variable light chain (VL) CC fragment. The fragment is used to produce a mixture or panel of 5 CC different specific binding members, each comprising an antibody VH CC and/or VL variable domain and capable, when displayed on the surface CC of filamentous bacteriophage particles or in the case of a specific binding member comprising the D5 VH and/or VL variable domain when CC binding member comprising the D5 VH and/or VL variable domain when CC blood brain barrier (BBB). The panel is useful for the selection of CC specific binding members with a desired property such as ability to CC cross BBB, ability to bind endothelial cells or other brain cell antigen, CC ability to bind intracellular adhesion molecules and to bind transferrin CC ability to bind areas of inflammation in the brain or BBB breakdown or CC ability to bind areas esseful in diagnosis, prophylaxis and CC treatment of human or animal body, including neurological disease, such CC as Alzheimer's disease, prion disease, AIDS-related dementia, epilepsy CC and traumatic brain injury and any diseases involving inflammation CC occurring within the brain or central nervous system.
Best Local Similarity
                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 94; 109pp; English.
                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      molecules and treating neurological diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mixture or panel of antibodies for selecting specific binding members that cross the blood brain barrier, for use in delivering different
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-398131/42.
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                                                                                                       108 AA;
76.4%;
90.0%;
Score 42; DB 22; Pred. No. 1.5;
                         Length 108;
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Search completed: June 12, 2002, 11:23:34 Job time: 319 sec

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OM protein - protein search, using sw model
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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# ALIGNMENTS

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Ig lambda chain - human
C;Species: Homo saplens (man)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 21-Jan-2000
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 21-Jan-2000
C;Accession: S47184
R;McIntosh, R.S.; Tandon, N.; Metcalfe, R.A.; Weetman, A.P.
submitted to the EMBL Data Library, June 1994
A;Description: Cloning and analysis of IgM anti-thyroglobulin autoantibodies from pat A;Reference number: S47181
A;Reference number: S47181
A;Accession: S47184
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-108 <MCI>
A;Cross-references: EMBL:X79783; NID:g506426; PIDN:CAA56179.1; PID:g506427
C;Superfamily: immunoglobulin V region; immunoglobulin homology
C;Keywords: heterotetramer; Immunoglobulin
F;15-89/Domain: immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                Ig lambda chain V region (clone alpha-BSA3) - human
C:Species: Homo sapiens (man)
C:Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 20-Jun-2000
C:Accession: S19663
                                                                                                                        A;Molecule type: mRNA
A;Residues: 1-109 <br/>
A;Residues: 1-109 <br/>
A;Residues: 1-109 <br/>
A;Cross-references: EMBL:X61640; NID:g29492; PIDN:CAA43821.1; PID:g1340166<br/>
C;Superfamily: immunoglobulin V region; immunoglobulin homology<br/>
C;Keywords: heterotetramer; immunoglobulin<br/>
E;15-89/Domain: immunoglobulin homology <IMM>
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A;Map position: 22q11.2-22q11.2
C;Complex: An immunoglobulin heterotetramer subunit consists of two identical light (kap hain disulfide bonds. In some cases, such as IgA and IgM, the subunits associate into la
                                                                                                                                                                                                                                         C;Keywords: heterotetramer; immunoglobulin F;14-88/Domain; immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                      Hail disulfide bonds. In some cases, such as IgA and IgM, the subunits associate into (Superfamily: immunoglobulin V region; immunoglobulin homology
                                                                                                                                                                                                                     F;21-86/Disulfide bonds: #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Gene: GDB: IGLV@
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Itani, K.; Wikler, M.; Shinoda, T.; Putnam, F.W. Biol. Chem. 245, 2171-2176, 1970

A, Title: The amino acid sequence of a lambda type Bence-Jones protein. III. The complete A; Reference number: A92057; MUID:70166723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Note:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: protein A; Residues: 1-108 <TIT>
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Nature 408, 816-820, 2000
A.; Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C. C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali, Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
A; Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, Lie: Sequence and analysis of chromosome l of the plant Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ig lambda chain V-III region (Sh) - human
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C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 23-Mar-2001
C;Accession: B96635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: GB:AE005173; NID:g6751686; PIDN:AAF27669.1; GSPDB:GN00141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Status: preliminary
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                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Species: Homo sapiens (man)
Date: 24-Apr-1984 #sequence_revision 24-Apr-1984 #text_change 02-Sep-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Accession: A01980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
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Accession: B96635
                                                                                                             Local Similarity
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                               2 SRDSSGIHVV 11
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                                                                                      Conservative
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Pred. No. 2;
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Pred. No. 3.2;
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                                                                                                                                    DB 1;
                                                                                                                                    Length 108;
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R;Kuroda, M.; Ohta, T.; Uchlyama, I.; Baba, T.; Yuzawa, H.; Kobayashi, I.; Cui, L.; Oma, A.; Mizutani-Ui, Y.; Kobayashi, N.; Sawano, T.; Inoue, R.; Kaito, C.; Sekimizu, K
                                                                                                                                                                                   RESULT
C89771
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Immunoglobulin G binding protein A precursor [imported] - Staphylococcus aureus C;Species: Staphylococcus aureus C;Date: 10-May-2001 #sequence_revision 10-May-2001 #text_change 22-Oct-2001 C;Accession: C89771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Introns: 239/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                 C; Superfamily: Arabidopsis thaliana hypothetical protein F20M13.80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Gene: NCSP:B17C10.70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: EMBL:AL355926; GSPDB:GN00116; NCSP:B17C10.70 A;Experimental source: BAC clone B17C10; strain OR74A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-622 <SCH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;Schulte, U.; Aign, V.; Hoheisel, J.; Brandt, P.; Fartmann, B.; Holland, R.; Nyakatu submitted to the Protein Sequence Database, May 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Species: Neurospora crassa
C;Date: 02-Jun-2000 #sequence_revision. 02-Jun-2000 #text_change 17-Nov-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: T49426
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Type 2C Protein Phosphatase related protein [imported] - Neurospora crassa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: EMBL:X57804; NID:g33705; PIDN:CAA40942.1; PID:g33706 C;Superfamily: immunoglobulin V region; immunoglobulin homology C;Keywords: heterotetramer; immunoglobulin C;Keywords: heterotetramer; immunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Status: preliminary; translation not shown A;Molecule type: mRNA A;Residues: 1-190 <COM>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ig lambda chain - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 22-Nov-1993 #sequence_revision 26-May-1995 #text_change 21-Jan-2000
C;Accession: S25740
R;Combriato, G.; Klobeck, H.G.
Bur. J. Immunol. 21, 1513-1522, 1991
Eur. J. Immunol. 21, 1513-1522, 1991
                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local :
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3.7;
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GenCore version 4.5
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OM protein - protein search, using sw model

Run on: June 12, 2002, 11:39:17; Search time 29.47 Seconds (without alignments)
14.452 Million cell updates/sec

Title:
Perfect score:
Sequence: US-09-780-035-14 55 1 GSRDSSGIHVV 11

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched: 105224 seqs, 38719550 residues

number of hits satisfying chosen parameters: 105224

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : SwissProt\_40:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11			<b>@</b>	7	6	<sub>5</sub>	4	ω	۵	_	- I	Result
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	Q40471 nicotiana t	P44960 haemophilus	escherio	erwinia		N	5 bos tau		l homo sap	3 xenopu:	8 rattus nor	ω	σ	9 cavia porc	1 methanobac	œ		5 mycopl	4	G	1 bos taurus	9 chlamydia	3 bacillus			oryza sat	0	3 methylococ	-		7 staphylc	714 homo sapi	Description	

33 60.0 562 1 NPRM_BACME 33 60.0 566 1 NPRE_BACCE 33 60.0 590 1 NPRE_PAEPO 33 60.0 746 1 GYP7_YEAST 33 60.0 810 1 SYFB_SYNY3 33 60.0 2124 1 PGCA_RAT 32.5 59.1 318 1 BST1_HUMAN 32 58.2 206 1 ADEN_ADEG1 32 58.2 243 1 YJFH_ECOLI 32 58.2 243 1 YJFH_ECOLI 32 58.2 285 1 MENB_PASMU 32 58.2 285 1 RL2_MYCGE	60.0 562 1 60.0 566 1 60.0 7590 1 60.0 810 1 60.0 2124 1 59.1 318 1 58.2 203 1 58.2 260 1 58.2 285 1	45	44	43	42	41	40	39	38	37	36	35	34
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	1 NPRM_BACME Q00891 1 NPRE_BACCE P05806 1 NPRE_PAEPO P48365 1 SYFB_SYNY3 P74296 1 PGCA_RAT P7897 1 BST1_HUMAN Q10589 1 ADBN_ADEG1 P42672 1 YJFH_ECOLI P39290 1 VBR1_ICMV Q08595 1 MENB_PASMU Q961v5	58.2	58.2	58.2	58.2	58.2	59.1	60.0	60.0	60.0	60.0	60.0	60.0
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# ALIGNMENTS

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Staphylococcus aureus. Bacteria; Firmicutes; Bacillus/Clostridium group; Bacteria; Firmicutes; Bacillus/Clostridium group; Bacillus/Staphylococcus group; Staphylococcus. NCBI_TaxID=1280; [1]	01-OCT-1994 (Rel. 30, Created) 01-OCT-1994 (Rel. 30, Last sequence update) 01-OCT-2001 (Rel. 40, Last annotation update) Immunoglobulin G binding protein A precursor (IGG binding protein A). SPA.	T 2. STAAU SPA2_STAAU STANDARD; PRT; 508 AA. D36607.		atch cal Similari 8; Cons	NON_TER 108 108 SEQUENCE 108 AA; 11392 MW; E7E1229586411A56 CRC64;		Pfam; PF00047; ig; 1. SMART; SM00406; IGV; 1.	InterPro; IPR003596; Ig_v.	nsse; rul/us; /kAB. InterPro; IPR003006; Iq MHC.	A01980; L3HUSH.	J. Biol. Chem. 245:2171-2176(1970).	idges.";	complete amino acid sequence and the location of the disulfide	ni K., Wikler M., Shinoda T., Putnam F.W.;	166723; PubMed=4909	ABOITANGE [+]	I_TaxID=9606;	Eukaryota; Metazoa; Chordata; Cranlata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.		lain V-III region SH.	21-JUL-1986 (Rel. 01, Last sequence update)	(Rel. 01,	LYSA_HUMAN STANDARD; PRT; 108 AA. P01714:	1 UMAN

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Staphylococcal protein A.";

J. Mol. Biol. 272:573-590(1997).

1- SUBCELLULAR LOCATION: Type I membrane protein. Cell wall.

1- DOMAIN: THE N-TERMINAL HALF CONTAINS THE IG-BINDING REGION WHILST THE C-TERMINAL HALF IS THE CELL-WALL-BINDING DOMAIN.

1- MISCELLANEOUS: IMPORTANT IMMUNODIAGNOSTIC REAGENT BECAUSE C
                     Pfam; PF00746; Gram_pos_anchor;
Pfam; PF01476; LysM; 1.
                                                                                                                                                                                                                                                                                                                                                         EMBL; M18264; AAA26677.1; -. PIR; A29605; A29605.
                                                                                                                                                                                                                                                                                                                                                                                                                                entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINS-93003122; pubMed=1330743; MEDLINS-93003122; pubMed=1330743; Gouda H., Torigoe H., Saito A., Sato M., "Three-dimensional solution structure of "Three-dimensional solution structure of structure of the st
SMART; SM00257;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Starovasnik M.A., Skelton N.J., O'Connell M.P., Kelley R.F., Reilly D., Fairbrother W.J.; "Solution structure of the E-domain of staphylococcal protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      [3]
STRUCTURE BY NMR OF 211-270
MEDLINE-93003122; PubMed-130
                                                                                                    InterPro;
                                                                                                                                 InterPro;
                                                                                                                                                      InterPro;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Montelione G.T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pashiro M., Tejero R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-97467196;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRUCTURE BY NMR OF 212-269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Biochemistry 35:15558-15569(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Biochemistry 31:9665-9672(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN-COWAN 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gene 58:283-295(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Staphylococcus aureus
in Escherichia coli.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minton N.P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=88112878; PubMed=2828190; Shuttleworth H.L., Duggleby C.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. STRAIN=COWAN 1 / N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WEDLINE=97110349;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRUCTURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=78023926;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PARTIAL SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Structural studies on the four repetitive Fc-binding regions protein A from Staphylococcus aureus.";
                                                                                                                                                                                                                             1BDC; 11-JAN-97.
1BDD; 11-JAN-97.
1EDI; 01-APR-97.
1EDJ; 01-APR-97.
1EDK; 01-APR-97.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIMILARITY: TO OTHER STREPTOCOCCAL AND STAPHYLOCOCCAL PROTEINS IN THE REGION OF THE MEMBRANE ANCHOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABILITY TO BIND THE
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                                                                         PF02216; B; 5
                                                                                              01-APR-97.

21-APR-00.

IPRO03132: B_domain.

IPRO01899; Gram_pos_anchor.

IPRO02482; Lysm.
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m. 78:471-490(1977).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PubMed-8952510;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCTC 8530;
PubMed=913410;
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the B domain of
the solution and crystal
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Best Local
                              J. Biol. [3]
 SEQUENCE OF 1-186
STRAIN=8325-4;
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SEQUENCE
                                                                                          STRAIN=8325-4;
                                                                                                                                                    "Complete sequence of the staphylococcal gene encoding protein gene evolved through multiple duplications.";
                                                                                                                                                                                                                                                                                           Bacteria; Firmicutes; Bacillus/Clostridium group; Bacillus/Staphylococcus group; Staphylococcus.
                                                                                                                                                                                                                                                                                                                         Staphylococcus aureus.
                                                          Lindberg M.;
                                                                            Uhlen M., Guss
                                                                                                          REVISIONS
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                                                                                                                                                                                                                  MEDLINE=84111639; PubMed=6319407;
                                                                                                                                                                                                                                   STRAIN-NCTC
                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
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30-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                    P02976;
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(Rel. 30, Last sequence update)
(Rel. 39, Last annotation update)
lin G binding protein A precursor
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n. 259:1695-1702(1984).
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5 x 57 AA APPROXIMATE TANDEM REPEATS.
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E78C538D4B5E88F5
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                            Database :
                                                                                                                                                                                                                                                                                                                                                                                                 number of hits satisfying chosen parameters:
 SPTREMBL_19:*
1: sp_archea:*
2: sp_bacteria
3: sp_fungi:*
4: sp_human:*
5: sp_inverteb:
6: sp_manmal:*
7: sp_mhc:*
10: sp_plant:*
11: sp_rodent:
12: sp_virus:*
11: sp_urclass
15: sp_rvirus:*
16: sp_archeap
17: sp_archeap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           June 12, 2002, 11:38:43 ; Search time 107.96 Seconds (without alignments)
17.626 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                               562222 seqs, 172994929 residues
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Gapop 10.0 , Gapext 0.5
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55
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                           sp_archea:*
sp_bacteria:*
sp_fungi:*
                                                                                                     sp_organelle:*
sp_phage:*
: sp_plant:*
sp_rodent:*
sp_virus:*
sp_vertebrate:*
sp_unclassified:*
sp_rvirus:*
sp_bacteriap:*
sp_archeap:*
                                                                                                                                                      sp_invertebrate:*
sp_mammal:*
sp_mhc:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

16	15	14	13	12	11	10	9	8	7	σ	5	4	ω	N	1	Result No.	•
37	37	38	38	38	38	38	38	38	38	38	39	40	41	41	41	Score	
67.3	67.3	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	70.9	72.7	74.5	74.5	74.5	Query	ď
985	374	747	666	573	492	472	454	450	190	107	639	458	422	389	386	Query Match Length	
ហ	10	N	2	N	2	2	2	16	٧	4	N	17	10	10	10	В	
Q17341	004089	Q53832	Q53833	Q56192	Q56193	Q53779	Q53759	Q99XA2	Q53760	Q9NSD6	052165	Q96Y71	Q93XE7	Q9C957	Q9FPW7	ID	
Q1/341 C	004089	Q53832 st	Q53833 St			Q53779 st	Q53759 st	Q99xa2 s	Q53760 st	Q9nsd6 hc	052165 my				Q9fpw7 t	Description	~
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Q9C957 ID Q9C957 PRELIMINARY; PRT; 389 AA. AC Q9C957; DT 01-JUN-2001 (TrEMBLrel. 17, Created)	169 GEEDSG	1 GSRDSSGIHVV 11	ω. ω.	7/ 59. 60076	NCE 386 AA; 40745 M	Submitted (AUG-2000) to the EMBL/GenBank/DUBO databases. EMBL: AF292370; AAG44953.1;		metal transport family from the Zn/Cd hyperaccumulator, Thlaspi	"Identification and characterization of multiple members of the ZIP	Tetham D.T. D. Pence N.S., Kochian L.V.;		NCBI_TaxID=107243;	eurosids II; Brassicales; Brassicaceae; Thlaspi.	Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae;	Thlaspi Caerulescens. Strentonhuta: Fmhrvonhuta: Tracheophyta:	ZNT4.	PUTATIVE ZN TRANSPORTER ZNT4.	(TremBirel. 19, Last annotation	16 Lact		Q9FPW7 PRELIMINARY; PRT; 386 AA.	RESULT 1

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RX MEDIANE—21016719; PubMed—11130/14,
RA Theologis A., Ecker J.R., Palm C.J., Federspiel N.A., Kaul S.,
RA Theologis A., Ecker J.R., Palm C.J., Federspiel N.A., Kaul S.,
RA White O., Alonso J., Altafi H., Araujo R., Bowman C.L., Brooks S.Y.,
RA White O., Chan A., Chao Q., Chen H., Cheuk R.F., Creasy T.H., Dewar K.,
RA Chung M.K., Conn L., Conway A.B., Conway A.B., Creasy T.H., Dewar K.,
RA Chung M.K., Conn L., Conway A.B., Conway A.B., Fujii C.Y.,
RA Chung M.K., Conn L., Conway A.B., Conway A.B., Fujii C.Y.,
RA Gill J.E., Goldsmith A.D., Haas B., Hansen N.F., Hughes B., Huizar L.,
Rim C.J., Koo H.L., Kremenetskaia I., Kurtz D.B., Kwan A., Lam B.,
Langin Hooper S., Lie A., Ler J.M., Lenz C.A., Li J.H., Li Y.-P.,
RA Militscher J., Miranda M., Nguyen M., Nierman W.C., Osborne B.I.,
RA Pai G., Peterson J., Pham P.K., Rizzo M., Rooney T., Rowley D.,
Sakano H., Salzerg S.L., Schwartz J.R., Shinn P., Southwick A.M.,
RA Sun H., Tallon L.J., Tambunga G., Toriumi M.J., Town C.D.,
RA Wu D., Yu G., Fraser C.M., Venter J.C., Datis R.W.;
RA Wu D., Yu G., Fraser C.M., Venter J.C., Datis R.W.;
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Best Local :
Assuncao A.G.L., da Costa Martins P., de Folter S., Vooij. Schat H., Aarts M.G.M.;
"Elevated expression of metal transporter genes in three the metal hyperaccumulator Thlaspi caerulescens.";
Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AF275752; AAK69430.1; -.
SEQUENCE 422 AA; 44968 MW; 874B878BDD599AA6 CRC64;
                                                                                                                                                                                                                                                                                                           01-DEC-2001 (TrEMBLrel. 19,
01-DEC-2001 (TrEMBLrel. 19,
01-DEC-2001 (TrEMBLrel. 19,
                                                                                                                                                                                                    Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II; Brassicales; Brassicaceae; Thlaspi.
                                                                                                                                                                                       NCBI_TaxID=107243;
                                                                                                                                                                                                                                                          Thlaspi caerulescens.
                                                                                                                                                                                                                                                                                              ZIP-LIKE ZINC TRANSPORTER.
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InterPro; IPR003689; Zip.
Pfam; PF02535; Zip; 1.
PRINTS; PR00334; KININOGEN
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EMBL; AC018908; AAG51647.1;
                                                                                                                                      ISSUE-ROOT
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Spermatophyta; Magnoliophyta; eudicots; core eudicots; Rosidae;
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
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01-DEC-2001 (TrEME
TOPOISOMERASE IV S
                                  MEDLINE=98353329; PubMed=9687401;
Bebear C.M., Charron A., Bove J.M., Bebear C., Renaudin "Cloning and nucleotide sequences of the topoisomerase parE genes of Mycoplasma hominis.";
 SEQUENCE OF
                          Antimicrob.
                                                                                                     SEQUENCE FROM N.A.
                                                                                                                             NCBI_TaxID=2098;
                                                                                                                                       Mycoplasmataceae; Mycoplasma
                                                                                                                                                   Bacteria; Firmicutes; Bacillus/Clostridium group; Mollicutes;
                                                                                                                                                                   Mycoplasma
                                                                                                                                                                                                                                              052165;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kawarabayasi Y., Hino Y., Horikawa H., Jin-no K., Takahashi M., Sekine M., Baba S.-I., Ahkai A., Kosugi H., Hosoyama A., Fukui S., Nagai Y., Nishijima K., Otsuka R., Nakazawa H., Takamiya M., Kato Y., Yoshizawa T., Tanaka T., Kudoh Y., Yamazaki J., Kushida N., Oguchi A. Aoki K.-I., Masuda S., Yanagii M., Nishimura M., Yamagishi A., Oshima T., Kikuchi H.;
                                                                                                                                                                                                                                01-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Complete genome sequence of an aerobic thermoacidophilic Crenarchaeon, Sulfolobus tokodaii strain7.";
DNA Res. 8:123-140(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q96Y71;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Hypothetical protein; Complete proteome. SEQUENCE 458 AA; 51003 MW; DEC38835D018B86F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PubMed=11572479;
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                                                                                                                                                                                                                                                                                                                       138
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Copyright (c) 1993 - 2000 Compugen Ltd.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

/cgn2\_6/ptodata/2/iaa/backfiles1.pep:\*

Database :

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1: /cgn2\_6/ptodata/2
2: /cgn2\_6/ptodata/2
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6: /cgn2\_6/ptodata/2

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#### SUMMARIES

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Sequence 16, Appli Sequence 17, Appli Sequence 9, Appli Sequence 9, Appli Sequence 10, Appli Sequence 15, Appli Sequence 15, Appli Sequence 15, Appli Sequence 33, Appli Sequence 33, Appli Sequence 33, Appli Sequence 430, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli Sequence 4, Appli Sequence 4, Appli Sequence 4, Appli Sequence 4, Appli Sequence 4, Appli Sequence 4, Appli Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli Sequence 3, Appli Sequence 1, Appli Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli Sequence 1, Appli Sequence 1, Appli Sequence 2, Appli Sequence 1, Appli	On

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# ALIGNMENTS

US-08-665-202-35

5, Application US/08665202 5977322

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US-08-665-202-35
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Patent No. 5977322

GENERAL INFORMATION:
APPLICANT: Marks, James D.
APPLICANT: Schier, Robert No. 5977322el High Affinity Human Antibodies to TITLE OF INVENTION: Tunor Antigens
                                                                                                                                               REFERENCE/DOCKET NUMBER: 02
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 35:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: LEM PC compatible
COMPUTER: DC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/000,238
FILING DATE: 14-JUN-1995
                                                                                                                                                                                                                                                                                                FILING DATE: 14-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/000,250
FILING DATE: 15-JUN-1995
ATTORNEY/AGENT INFORMATION:
                    MOLECULE TYPE:
                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 97 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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                                      TYPE: amino a STRANDEDNESS: TOPOLOGY: lin
                                                                                               LENGTH:
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CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                         NAME: Hunter, Tom REGISTRATION NUMBER: 38,498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/665,202
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ZIP: 94111-3834
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                                                                                 amino acid
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Query Match 76.4%;

Score 42; DB 2; Length 97;

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US-08-652-816A-16
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Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 28 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: David W. Clough
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT//
FILING DATE: 02-DEC-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0:
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CORRESPONDENCE ADDRESS:
**PDRESSEE: Marshall, O'Toole,
**PDRESSEE: Marshal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 07-DEC-
PRIOR APPLICATION DATA:
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APPLICANT: McCaffert
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APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: GB 9 FILING DATE: 24-MAR-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: GB 9: FILING DATE: 02-DEC-1991
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                                                                                                                                                                            amino acid
GY: linear
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9; Conser
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             76.4%;
90.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                 36,107
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             Score 42; DB 2; Pred. No. 0.71;
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South Wacker Drive
                                       Length 109;
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; OTHER INFORMATION:
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; OTHER INFORMATION:
US-09-260-527-1
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     Matches
                                                                                                                                                                                                                     SEQ ID NO 1
LENGTH: 2
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                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1, Application US/09260527A Patent No. 6228599
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LENGTH: 278
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                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                              APPLICANT: Knox, J.P.
APPLICANT: Mikkelsen, J.D.
APPLICANT: Willats, W. G.
TITLE OF INVENTION: ANTIBODY
FILE REFERENCE: DYOU19.001AUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local
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                                                                                                                                                                                                                                                    SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/260,527A CURRENT FILING DATE: 1999-02-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/260,527A CURRENT FILING DATE: 1999-02-26 NUMBER OF SEQ ID NOS: 7
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APPLICANT: Willats, W. G.
TITLE OF INVENTION: ANTIBODY
FILE REFERENCE: DYOUI9, 001AUS
                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS:
                                                                                              OTHER INFORMATION: Anti-homogalacturonan specific antibodies from OTHER INFORMATION: phage display library known as the Synthetic sc OTHER INFORMATION: Library (#1) from the Centre for Protein OTHER INFORMATION: Engineering, MRC Centre, Cambridge, UK.
                                                                                                                                                                                    ORGANISM: UNKNOWN
                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                       TYPE: PRT
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                    Local
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5. 6228599
   Similarity
9; Conserv
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   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Anti-homogalacturonan specific antibodies selected from a naive phage display library known as the Synthetic scFv Library (#1) from the Centre for Protein Engineering, MRC Centre, Cambridge, UK
               76.4%;
90.0%;
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                 Score 42;
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Pred. No. 2;
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   Mismatches
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                 DB 4;
2.1;
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                                Length 280;
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scFv
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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1: /SIDS1/qcada+a/
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Gapop 10.0 , Gapext 0.5
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37
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                                    AAB50794
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AAB82630
AAB21360
AAR76079
AAW27347
AAW42309
AAB466978
                                                                                                                                                                                                                                                                                        SUMMARIES
                                                                          Murine derived ant
Rat antibody 2C10
MAb 55.1 heavy cha
CDR1 from murine a
                                                                                                                                                                                                                                Description
                    Biotinylated cross
Rat antibody 14B7
Anti-thyroid perox
                                                                                                                                                                        Murine antibody S2
Anti-IL-18 antibod
    Humanised
                                                                                                                                                    Anti-progesterone
  ATR-5 H
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Anti-HIV peptide w	AAM51308	22	6	54.1	20
VLA-4 binding pept	AAR92606	17	6	54.1	20
inding pep	AAR92553	17	6	54.1	20
e for ti	AAR37395	14	6	54.1	20
peptide	AAR25076	13	6	54.1	20
norphir	AAB81027	22	Un	54.1	20
	AAM51419	22	5	54.1	20
pept	AAM51357	22	տ	54.1	20
рe	AAM51295	22	5	54.1	20
NAP domain fragmen	AAB15327	21	<sub>5</sub>	54.1	20
	AAB15326	21	ر. د	54.1	20
×	AAY30442	20	5	54.1	20
Nematode extracted	AAY30441	20	5	54.1	20
	AAY49216	20	5	•	20
Heavy chain CDR1 o	AAW39863	19	<sub>5</sub>	54.1	20
etic pe	AAW25215	18	տ	•	20
subsec	AAR91723	17	5	•	20
NAP subsequence.	AAR91722	17	5	54.1	20
Peptide exhibiting	AAW62358	19	4	54.1	20
Synthetic peptide	AAW25216	18	4		20
Alphal-proteinase	AAY50630	21	σ'n	•	21
	AAW93177	20	6		21
Isoelectric point	AAW19190	18	o ر	•	21
Peptide for	AAR37396	14	6		21
H. pylori catalas	AAB86075	22	տ		21
H. pylori	AAB86043	22	ъ		21
Nerve relate	AAW93178	20	5	٠	21
CDR1 of	AAW70923	19	ហ	•	21
Peptide dete	AAW87110	19	5	•	21
Peptide determined	0	19	5		21
lectric point	AAW19193	18	5	٠	21
e dete	719	19	6	•	23
e determine	71	19	6	62.2	23
equence fro	AAB07960	21	5	٠	23

# ALIGNMENTS

PI	PΑ	××	PR	XX	ΡF	XX	PD	××	PN	×	SO	×	ΚW	XX	ΚW	X	DE	XX	Dī	X	AC	Ħ	AAB50794	RESULT
Siegall CB, Wahl AF, Francisco JA, Fell HP;	(SEAT-) SEATTLE GENETICS INC.		08-JUN-1999; 99US-0328296.		08-JUN-2000; 2000WO-US15749.		14-DEC-2000.		WO200075348-A1.		Mus musculus.		complementarity determining region.	inflammatory disease; immune system disorder; CDR;	Mouse; antibody; S2C6; heavy chain variable region; CD40; cancer;		Murine antibody S2C6 heavy chain variable region CDR1.		21-MAR-2001 (first entry)	•	AAB50794;	AAB50794 standard; Protein; 6 AA.	794	9 1

XX PT PT XXX

WPI;

2001-071080/08.

Anti-CD40 antibodies which immunospecifically bind CD40, useful for prevention and treatment of cancer, inflammatory diseases and disorders or deficiencies of immune system -

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Best Local
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The invention provides isolated antibodies, or antigen-binding portions, that are capable of binding to human interleukin-18 (IL-18). The antibodies may be used to inhibit human II-18 activity in, and treat a disorder where II-18 is detrimental in, a human subject suffering from, inflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease, inflammatory bowel disease, and osteoarthritis), neurological disorders (a.g., Huntington's chorea, Parkinson's disease, Alzheimer's disease, and stroke), heart fallure, myocardial infarction, autoimmune diseases such as autoimmune hepatitis and autoimmune neutropaenia, and mental disorders (e.g., depression and schizophrenia). Treatment with an anti-II-18
                                                                                                                                                                                                                                         Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders, neurological disorders, heart failure, myocardial infarction, and
                                                                                                                                                                                             Claim 25; Page 37; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention provides the protein and coding sequences of anti-CO40 antibodies. These can be used in the treatment of cancer and inflammatory and immune system diseases, including systemic lupus erythematorsus, scleroderma, inflammatory myositis, Sjogren's syndrome, mixed connective tissue disease, rheumatoid arthritis, multiple sclerosis, inflammatory bowel disease, acute respiratory distress syndrome, pulmonary inflammation, osteoporosis, delayed type hypersensitivity, asthma, primary billary cirrhosis and idiopathic
                                                                                                                                                                                                                               autoimmune diseases
                                                                                                                                                                                                                                                                                                                  WPI; 2001-550020/61.
                                                                                                                                                                                                                                                                                                                                                    Lennard SN;
                                                                                                                                                                                                                                                                                                                                                                     Duncan
                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-FEB-2000; 2000US-0181608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-FEB-2001; 2001WO-US04170
                                                                                                                                                                                                                                                                                                                                                                                                                   (BADI ) BASF AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200158956-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAG65299 standard; protein; 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IL-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Anti-IL-18 antibody 2E1 heavy chain CDR1 fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       thrombocytopaenic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        immunosuppressive; antidepressant; neuroleptic; hepatotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity les 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 tgyyih 6
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                                                                                                                                                                                                                                                                                                                                                                     AR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Page
                                                                                                                                                                                                                                                                                                                                                                                    Dixon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6
                                                                                                                                                                                                                                                                                                                                                                  Brocklehurst SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                M, White M, Mankovich J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 37; DB 22;
Pred. No. 6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                  Labkovsky B,
Shorrock CP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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                                                                                                                                                                                                                                                                                                                                                                Salfeld J;
Thompson JE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
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                          comprising at least one individual nascent protein or peptide or other DNA expression product associated with one or more ribosomes and the specific mRNA encoding the protein or peptide; (b) contacting the complexed particles with a ligand, antigen, antibody or other agent in order to select particles through binding to the protein or peptide product; and (c) recovering the genetic information encoding the protein or peptide as DNA by RT-PCR carried out on the mRNA while the latter remains bound to the complexed particle. The steps of display, selection and recovery can be repeated in consecutive cycles. The method is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-FEB-1998;
28-MAY-1997;
26-NOV-1997;
                                                                                                                                                                                   The invention relates to methods for the display and selection of proteins or peptides and for recovery of the genetic material encoding them. One method comprises (a) transcription and translation of DNA in cell free system such that complexed particles are formed, each
mRNA complexes (ARMs). Methods in which the DNA is produced
               exemplified using single-chain antibody constructs as antibody-ribosome
                                                                                                                                                                                                                                                                        Example 13; Fig 19; 62pp; English.
                                                                                                                                                                                                                                                                                                          complexes and RT-PCR on RNA bound to ribosomes
                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-059832/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antibody may occur before, concurrent, or after administration of a second agent selected from an antibody, or fragment, capable of binding human IL-12, methotrexate, anti-tumor necrosis factor, corticosteroids, cyclosporin, rapamycin, FK506, and non-steroidal anti-inflammatory agents. The present sequence represents an anti-IL-18 antibody 2E1 heavy
                                                                                                                                                                                                                                                                                                                        In vitro display and evolution of proteins - by transcription and translation of DNA in a cell free system, selection and recovery of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-DEC-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9854312-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ARM; protein selection; display; cell free system; genetic information; reverse transcription; single-chain antibody; RT-PCR; primer; drug; antibody-ribosome-mRNA complex; antibody engineering; progesterone;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                 (BABR-) BABRAHAM INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    testosterone;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Anti-progesterone antibody Vh region (clone 1578/p1) CDR H1 sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW95252;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW95252 standard;
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6; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   σ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                o.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98GB-0004195.
97GB-0010829.
97GB-0024850.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-GB01564.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; S
100.0%; P
ntive 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ហ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 37;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
by RT-PCR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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AAB86299
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               methods for making antibodies of human, mouse or rat are also provided. The methods can be used for the display and selection of single chain antibody fragments from libraries, antibody engineering, selection of human antibodies and selection of proteins from mRNA libraries. They can also be used to select ligands for combining sites or receptors, such ligands having potential uses as drugs or therapies. By carrying out the RPT-PCR recovery stop directly on the intact ribosome complex without prior dissociation to release the mRNA maximal efficiency and sensitivity can be obtained. Peptides AAW95247 to AAW95271 represent sequences of human anti-progesterone and anti-testosterone antibodies isolated from an immunised transgenic mouse by ARM display.
                This invention describes novel antibodies (Ab) in which the variable region (VR) of at least one chain and/or the VR of at least one heavy chain includes at least one of 7 specified sequences, or fragments of these sequences or contain at least one light chain and/or heavy chain encoded by specific nucleic acid sequences (1) and (II), reproduced, or their fragments. The products of the invention have antitumor and immunomodulatory activity. Ab, or other antibodies that recognize the same antigen, are used: (1) to identify cognate antigens; (ii) for specific labeling of plasma cells (PC), for identification or separation, e.g. in an extracorporeal system; (iii) for generating additional antibodies able to label PC; and (iv) for treating autoimmune diseases and/or tumors, e.g. multiple myeloma, lymphoma and/or tumors, e.g. multiple myeloma, lymphoma and/or tumors, e.g. multiple myeloma, lymphoma and/or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Antibody; Wue-1; variable region; light chain; heavy chain; antitumor; immunomodulatory; cognate antigen identification; autoimmune disease; tumor; multiple myeloma; lymphoma; plastocytoma; CDR-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Murine derived antibody Wue-1 heavy chain variable region CDR-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB86299;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB86299 standard; peptide; 5 AA.
                                                                                                                                                                                                                                                                                                                          Claim 1; Page 11; 18pp; German.
                                                                                                                                                                                                                                                                                                                                                                  diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mueller-Hermelink HK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (MUEL/) MUELLER-HERMELINK H K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DE19962583-A1
plastocytoma. Ab are specific for mature PC, i.e.
                                                                                                                                                                                                                                                                                                                                                                                       New antibodies specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GREI/) GREINER A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 gyymh 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 GYYIH 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4
                                                                                                                                                                                                                                                                                                                                                                                                                                       2001-426596/46
                                                                                                                                                                                                                                                                                                                                                                     of autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99DE-1062583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99DE-1062583.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        78.4%;
80.0%;
                                                                                                                                                                                                                                                                                                                                                                  for plasma cells, useful for treatment and diseases and plasma cell tumors -

    Mismatches

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 29; DB 20;
Pred. No. 6.4e+05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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do not recognize

Sequence

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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  precursor stages, even though these precursors are used as immunogens. As therapeutic agents, they should show fewer side effects than conventional chemotherapeutic agents. This sequence represents the Wue-1 antibody variable region heavy chain complementarity determining region CDR-1 fragment described in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               autoimmune disease; multiple scierosis; rheumatoid arthritis; type I diabetes; insulin dependent diabetes; IDDM; psoriasis; inflammatory bowel disease; complementarity determining region;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rat; antibody 2C10; antiarthritic; immunosuppressive; n
antiinflammatory; antipsoriatic; interleukin-18; IL-18;
                                                                                                                   The present sequence is complementarity determining region I (CDR I) of the rat antibody 2010 heavy chain variable region. The antibody has high affinity for human interleukin-18 (IL-18) and is useful for treating and diagnosing IL-18-mediated disorders, e.g. autoimmune diseases such as multiple sclerosis, rheumatoid arthritis, type I or insulin dependent multiple sclerosis, rheumatoid arthritis, type I or insulin dependent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rat antibody 2C10 heavy chain variable region CDR I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB21360 standard; Peptide; 5 AA.
                                                                                                                                                                                                                                                                             Novel anti-human interleukin (IL)-18 rodent neutralizing monoclonal antibody having high affinity and useful for treating IL-18 mediated disorders such as multiple sclerosis, rheumatoid arthritis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rattus norvegicus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-JAN-2001 (first entry)
                                               be introduced into the nucleotide sequences encoding the CDRs or framework regions of the variable light chain and heavy chain peptides. The resulting modified or fusion nucleic acid sequences can then be
                                                                                                                                                                                                                             Disclosure; Fig 2; 64pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                        Ho YS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-MAR-2000; 2000WO-US07349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200056771-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                           (SMIK)
                                  introduced into a plasmid for expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (SMIK ) SMITHKLINE BEECHAM CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 gyymh 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 GYYIH 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             u
                                                                                                                                                                                                                                                                                                                                                                       2000-628249/60.
                                                                                                                                                                                                                                                                                                                                                                                                                                           SMITHKLINE BEECHAM PLC
                                                                                                                                                                                                                                                                                                                                                        AAA99639.
                                                                                                    inflammatory bowel disease and psoriasis. Specific changes can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0125299
                                                                                                                                                                                                                                                                                                                                                                                                          SD,
                                                                                                                                                                                                                                                                                                                                                                                                           Taylor AH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       78.4%;
80.0%;

    Mismatches

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 29;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                           Abcel-Meguid SS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            neuroprotective;
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XXXI
                                          RESULT
AAW273
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                                                                                                                                          Matches
                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
       AAW27347;
                              AAW27347 standard; peptide; 5 AA.
                                               347
                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                 An antigen binding structure is based on the CDRs (given in AAR76078-84) of the heavy and light chains of MAB 55.1 (ECACC 93081901), which recognises the colorectal tumor-associated antigen CA55.1. It is optionally humanized and in the form F(ab')2, F(ab)', Fab, Fv, scFv or V-min, and is produced in transgenic animals or plants.
                                                                                                                                                                                                                                                                                                              Antigen binding structures containing CDRs recognising the CA55.1 antigen - produced by hybridomas and host cells, for use in the diagnosis and therapy of cancer
                                                                                                                                                                                                                                                                                          Claim 2; Page 96; 121pp; English.
                                                                                                                                                                                                                                                                                                                                                                                            Rose MS,
                                                                                                                                                                                                                                                                                                                                                                                                     Blakey DC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-JUN-1994;
03-DEC-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-JUN-1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Antigen binding structure; complementarity determining region; CDR; CA55.1; colorectal cancer; tumor-associated antigen; hybridoma; monoclonal antibody; MAb; immunotherapy; therapy; diagnosis; transgenic animal; transgenic plant; antibody engineering;
                                                                                                                                                                                                                                                                                                                                                                                                                             (ZENE ) ZENECA LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-NOV-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W09515382-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MAb 55.1 heavy chain CDR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  humanized antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-NOV-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAR76079;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR76079 standard; Peptide; 5
                                                                                         1 gywih 5
                                                                                                              2 GYYIH 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gyyfh
                                                                                                                                         4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4.
                                                                                                                                                                                                                                                                                                                                                                                          , Boot C, Wright AF;
                                                                                                                                                                                                  5 AA;
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                                                                                                                                         Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  94GB-0011089
93GB-0024819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94WO-GB02610
                                                                                                                                                  73.0%;
80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  immunotoxin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               75.7%;
80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                    Copley CG,
                                                                                                                                         1;
                                                                                                                                                  Score 27; DB 16;
Pred. No. 6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 28; DB 21; Pred. No. 6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A
                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                    Hall SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 21; Length 5;
                                                                                                                                                                                                                                                                                                                                                                                                    Paterson DS;
                                                                                                                                      0;
                                                                                                                                                            Length 5;
                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                     0;
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                                                                                                                                     Gaps
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                                                                                                                                     0
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RESULT
AAW42309
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                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                     Bacteriophage peptide library; peptide epitope; therapeutic target; variegated compound library; interleukin-8; IL-8.
                                                                                                                                                                                                                                                                                                                                                                                                                                               The present complementarity determining region 1 (CDR1), which is from a murine, anti-human high affinity immunoglobulin E (IgE) receptor, monoclonal antibody (MAb) light chain variable region, can be used in the preparation of humanised or semi-chimeric anti-human high affinity IgE receptor MAb. The MAb can be used to treat or prevent diseases, specifically allergies, associated with the receptor. The humanised, semi-chimeric or chimeric MAb have very low antigenicity in humans.
                                                     W09735194-A2
                                                                                  Synthetic
                                                                                                                                                Biotinylated cross-linked interleukin-8 6-mer peptide ligand 16.
                                                                                                                                                                                08-APR-1998
                                                                                                                                                                                                            AAW42309;
                                                                                                                                                                                                                                 AAW42309 standard; Peptide; 6 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1; Page 13; 26pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antigenicity in humans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Humanised, semi-chimeric and chimeric antibodies against human high-affinity IgE receptor - useful medicinally and have low
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1997-429186/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (NIKK-) NIKKA WHISKEY KK.
(TORI ) TORII YAKUHIN KK.
(TSUR/) TSURA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-JAN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus spp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Complementarity determining region; CDR1; murine; mouse; human; high affinity; immunoglobulin E; receptor; monoclonal antibody; IgE; MAb; light chain; variable region; humanised; semi-chimeric;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-JAN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-JUL-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JP09191886-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               chimeric;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDR1 from murine anti-human IgE receptor antibody light chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (ASAK ) ASAHI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-DEC-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                     2 yyih 5
                                                                                                                                                                                                                                                                                                                                 3 YYIH 6
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                                                                                                                                                                                                                                                                                                                                                                                                                             տ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            treatment; prevention; disease; allergy.
                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                            AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BREWERIES LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96JP-0024816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96JP-0024816
                                                                                                                                                                                                                                                                                                                                                      70.3%; Score 26; DB 18; 100.0%; Pred. No. 6.4e+05; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                  Length 5;
                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                      0;
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21-MAR-1997;

97WO-US04176

25-SEP-1997.

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RE
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В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cc invention. This novel method identifies compounds which interact with cc a target molecule, and comprises contacting a screening molecule with cc a variegated compound library, where the screening molecule comprises solid target molecule, or the enantiomer if the target molecule is compounds which have a desired interaction with the target molecule is tested. Ligands for a target protein can be compounded in the target molecule is tested. Ligands for a target protein can be compounded in the target protein can be compounded in the compound in the protein can be compounded in the compound in the protein can be compounded in the compound in the 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6-mer peptides AAW42294-309 are identified as ligands of a biotinylated, cross-linked interleukin-8 (IL-8) target, using the method of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Fig 7; 89pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Identifying compounds which interact with target molecules - using
enantiomers of the target molecules and testing of enantiomers of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-MAR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1997-480355/44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Forster AC;
                                                                                                                                                                                                                                                                               autoimmune disease; multiple sclerosis; rheumatoid arthritis; type I diabetes; insulin dependent diabetes; IDDM; psoriasis;
                                                                                                                                                                                                                                                                                                                                     Rat; antibody 14B7; antiarthritic; immunosuppressive; neuroprotective; antiinflammatory; antipsoriatic; interleukin-18; IL-18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-JAN-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAB26978;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           selected compounds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (HARD ) HARVARD COLLEGE
19-MAR-1999;
                                              17-MAR-2000;
                                                                                                                                                                                                       Rattus norvegicus.
                                                                                                                                                                                                                                                                                                                                                                                                                  Rat antibody 14B7 heavy chain variable region CDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB26978 standard; Peptide; 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tor drug activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               as peptides but with the greatly improved pharmacokinetic profiles needed
                                                                                                  28-SEP-2000
                                                                                                                                                                                                                                                         inflammatory bowel disease; complementarity determining region; CDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 yyih 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 YYIH 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                 2000WO-US07349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96US-0622338.
99US-0125299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70.3%; Score 26; DB 18; 100.0%; Pred. No. 6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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AAR95324
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       of the rat antibody 14B7 heavy chain variable region. The antibody has high affinity for human interleukin-18 (IL-18) and is useful for treating and diagnosing IL-18-mediated disorders, e.g. autoimmune diseases such as multiple sclerosis, rheumatoid arthritis, type I or insulin dependent diabetes, inflammatory bowel disease and psoriasis. Specific changes can be introduced into the nucleotide sequences encoding the CDRs or framework regions of the variable light chain and heavy chain peptides. The resulting modified or fusion nucleic acid sequences can then be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel anti-human interleukin (IL)-18 rodent neutralizing monoclonal antibody having high affinity and useful for treating IL-18 mediated disorders such as multiple sclerosis, rheumatoid arthritis and psoriasis .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; AAA99655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (SMIK )
                                                                                                                                                                                                                                                                    complementarity determining region; light; heavy chain; polymerase chain reaction; antibody library; diversity; immunospecificity; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence is complementarity determining region I (CDR I)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Fig 6; 64pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       psoriasis
                                                                                                                                                                                                                                              Synthetic.
                                                                                                                                                                                                                                                                                                              Mutagenesis; Ig; immunoglobulin; FR; framework region; variable; CDR;
                                                                                                                                                                                                                                                                                                                                                                     24-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                AAR95324;
                                                                                                                                                                                                                                                                                                                                                                                                                          AAR95324 standard; peptide; 5 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                   WPI; 1996-171625/17.
                                                                            Barbas CF,
                                                                                                                                 02-SEP-1994;
                                                                                                                                                            01-SEP-1995;
                                                                                                                                                                                         14-MAR-1996
                                                                                                                                                                                                                    W09607754-A1
                                                                                                                                                                                                                                                                                                                                         Anti-thyroid peroxidase antibody clone SP1.2 heavy chain CDR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            introduced into a plasmid for expression
                                                                                                      (SCRI ) SCRIPPS RES INST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 yyvh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3 YYIH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SMITHKLINE BEECHAM CORP
SMITHKLINE BEECHAM PLC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Holmes SD,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5 AA;
                                                                              Burton DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                   94US-0300386
                                                                                                                                                               95WO-US11235.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Taylor AH, Abdel-Meguid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               67.6%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 25; DB 21;
Pred. No. 6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                        affinity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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gene CDR - useful for prodn. of combinatorial antibody libraries

Oligo-nucleotide(s) for inducing mutagenesis in an Ig light chain gene CDR - useful for prodn. of Ig heavy and light chain

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RESULT
AAX5274
ID AA
XX AA
AC AA
AC AA
AC AA
XX AA
AC AA
XX 
         В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  )uery Match
                       The present invention describes chimeric antibody (Ab) heavy (H) chains containing the variable region of the H chain of a mouse monoclonal Ab recognising human tissue factor (hTF) and the constant region of the H chain of a human ab. The variable region is one of six specified sequences (which are the H chain variable regions from mouse monoclonal Ab's ATR-2,3,4,5,7 or 8). Also described are chimeric Ab light (L)
   chains
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human Ig light chain. The mutagenic primers have sequences at their 3' and 5' ends both capable of binding different framework regions linked by a sequence 6 to 50 nucleotides long. Different immunoglobulins produced using the primers may be used to produce antibody libraries having diverse and novel immunospecificities and affinities. By using mutagenic ONs an extremely large population of different randomised binding sites can be created and use of the universal light chain increases the number of combinations which yield functional
                                                                                                                                                                                                                                                                                                                    Humanised antibody recognizing human tissue factor, used for treatment of disseminated intravascular coagulation
                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1999-620204/53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human tissue factor; TF; humanised; antibody; mouse monoclonal antibody; ATR-2; ATR-3; ATR-4; ATR-5; ATR-7; ATR-8; thrombotic disease; DIC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Humanised ATR-5 H chain V region CDR1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W09951743-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      disseminated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-JAN-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (CHUS ) CHUGAI SEIYAKU KK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY52749 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           heterodimeric antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity es 3; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N
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                                                                                                                                                                                                                                                           11; Page 271; 291pp; Japanese.
gontaining the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9C; Page 76; 125pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Adachi H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               intravascular coagulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yabuta N;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          64.9%;
60.0%;
   variable region
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
   bed are chimeric Ab light of the L chain of a mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6.4e+05;
.ches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               immunogenicity; chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 17;
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RESULT :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    monoclonal Ab recognising human tissue factor (hTF) and the constant region of the L chain of a human Ab, the variable region being one of specified sequences (which are the L chain variable regions from mouse monoclonal Ab's ATR-2,3,4,5,7 or 8). The chimeric Ab's can be used for the treatment and prevention of thrombotic disease, especially of disseminated intravascular coagulation (DTC). The humanised antibody has the high hiff binding activity of the mouse monoclonal antibody but greatly reduced immunogenicity. AAZ33001 to AAZ33091 and Y527007 to AAY52767 represent sequences used in the exemplification of the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Complementarity determining region; CDR; antibody; B7 molecule; B7-1; B7-2; humanised immunoglobulin; autoimmune disease; infectious disease; inflammatory disorder; systemic lupus erythematosus; diabetes mellitus; insulitis; asthma; arthritis; inflammatory bowel disease; cancer; inflammatory dermatitis; multiple sclerosis; transplant rejection; proliferative disease; leukemia; lymphoma; anaemia; sickle-cell anaemia;
                                                                                                                                                                                                                                             Co MS,
                                                                                                                                                                                                                                                                                                                                     09-FEB-2000; 2000WO-US03303
                                                                                                                                                                                                                                                                                                                                                                                          WO200047625-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDR1 sequence from an antibody with affinity for
                                                                                                                                                                                                                                                                                                                                                                17-AUG-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-NOV-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB07960;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB07960 standard; peptide; 5
                                                                                                                                                                                                                                                                     (GEMY ) GENETICS INST INC
                                                                                                                                                                                                                                                                                                                                                                                                                                           thalassemia; aplastic anaemia; myeloid dysplasia syndrome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12
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                                                                                                                                                                                                      2000-524532/47.
                                                                                                                                                                                                                               cs,
                                                                                                                                                                                                                              Vasquez M,
, Knight A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
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                                                                                                                                                                                                                                                                                              99US-0249011.
99US-0339596.
                                                                                                                                                                                                                              Carreno B,
O'hara D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62.2%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 23; DB
Pred. No. 6.4e
1; Mismatches
                                                                                                                                                                                                                            Celniker AC, Colli
Rup B, Veldman GM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB
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es 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B7 molecules
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The present sequence represents a complementarity determining region (CDR) 1 from the heavy chain of an murine antibody with having a binding specificity to B7-1 molecules. The sequence is used to construct humanized immunoglobulins, which comprise an antigen binding region of non-human origin and a portion of a human immunoglobulin. The humanized

mmunoglobulins are useful for treating autoimmune diseases,

infectious

Disclosure; Page 29; 162pp; English.

infectious diseases immune responses and

from ATCC Humanized

immunoglobulin having a binding specificity to B7-1 (derived PTA-263), or B7-2 (derived from ATCC CRL-12524) molecules,

can therefore treat e.g.

autoimmune

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Query Match
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                                          acids having a total mass that corresponds to the molecular mass of the unknown peptide; and (c) identifying a peptide in the library with a theoretical fragmentation spectrum that most closely matches the fragmentation spectrum of the unknown peptide. The method is useful in DNA cloning, anti-body production, identification of recombinant products, and the study of post-translational modifications. It allows the sequence of unknown peptides or proteins with no sub-sequence identity, to be characterised using mass spectrometry. Sequences 1 AAW87101 to AAW87364 represent a library of linear peptides constructed to exemplify the method. The isoleucine residue in these peptides can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mellitus, insulitis, asthma, arthritis, inflammatory bowel disease, inflammatory dermatitis, and multiple sclerosis. The immunoglobulins are also useful for treating a transplant recipient or preventing transplant rejection in a transplant recipient, and treating prolliferative disease (leukemia, lymphoma and cancer), anaemia (sickle-cell anaemia, thalassemia and aplastic anaemia), inborn errors of metabolism, congenital immunodeficiency diseases, and myeloid dysplasia syndrome.
replaced included
                                                                                                                                                                                                                                                                                                                                                          peptide; (b) comparing the experimental fragmentation spectrum of the unknown peptide with a theoretical fragmentation spectra calculated for a peptide library composed of all possible linear sequences of amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a method for determination of the amino acid sequence of an unknown peptide. The method comprises (a) determining the molecular mass and an experimental fragmentation spectrum for the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide sequence determination used in e.g. DNA cloning - by comparing mass spectra of the unknown peptide with a library of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW87188 standard; peptide; 6 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (OXFO-) OXFORD GLYCOSCIENCES UK LTD.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Amino acid determination; molecular mass; fragmentation spectrum; DNA cloning; anti-body; recombinant; modification; mass spectrometry.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-FEB-1999 (first entry)
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                         leucine to construct another 264 linear peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98GB-0011196
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the method of the invention
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Pred. No. 6.4e+05;
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Score 23; DB 19; Pred. No. 6.4e+05; 0; Mismatches 1

Length 6;

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62.2%; 80.0%;

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Best Local Similarity
                             the sequence of unknown peptides or proteins with no sub-sequence identity, to be characterised using mass spectrometry. Sequences AAW87101 to AAW87364 represent a library of linear peptides constructed to exemplify the method. The isoleucine residue in these peptides can be replaced by leucine to construct another 264 linear peptides to be included in the library.
                                                                                                                        unknown peptide; and (c) identifying a peptide in the library with a theoretical fragmentation spectrum that most closely matches the fragmentation spectrum of the unknown peptide. The method is useful in DNA cloning, anti-body production, identification of recombinant products, and the study of post-translational modifications. It allows
                                                                                                                                                                                                        sequence of an unknown peptide. The method comprises (a) determining the molecular mass and an experimental fragmentation spectrum for the peptide; (b) comparing the experimental fragmentation spectrum of the unknown peptide with a theoretical fragmentation spectra calculated for a peptide library composed of all possible linear sequences of amino acids having a total mass that corresponds to the molecular mass of the
Sequence
                                                                                                                                                                                                                                                                                                                                                                                         Peptide sequence determination used in e.g. DNA cloning - by comparing mass spectra of the unknown peptide with a library of
                                                                                                                                                                                                                                                                                                            The invention relates to a method for determination of the amino acid
                                                                                                                                                                                                                                                                                                                                           Example 1; Page 20; 40pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1998-571195/49.
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                                                                                                                                                                                                                                                                                                                                                                           linear chain known peptide sequences
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80.0%;
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Pred. No.
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AAW19193
Search completed: June 12, 2002, 10:58:36 Job time: 58 sec
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                                                                                                                                                      Query Match
Best Local Similarity
Matches 3; Conserv
                                                                                                                                                                                                                                                                      The present peptide, when labelled with a fluorescent dye, can be used as an isoelectric point (pI) marker for isoelectric focusing with fluorescence. The dye is linked to the peptide's amino-terminal through an amide, thioamide, sulphonamide, urea, thiourea or urethane bond, and is rhodamine, fluorescein, cyanine, indocyanine, indocyanine, pyronine, lucifer yellow, quinacrine, squarilium, coumarin, fluoroanthranil maleimide or anthracene. The marker can be used for capillary isoelectric focusing, and it is possible to construct peptide sets that cover a wide pI range and have good storage stability.

The present peptide has a calculated pI value of 7.90.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-OCT-1995;
31-MAR-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Isoelectric point marker peptide 52.
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                                                                                                                                                                                                                                           Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kasai K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MOLE-) LAB MOLECULAR BIOPHOTONICS.
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fluorescence; capillary; stable.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Isoelectric point markers for isoelectric focusing - comprising
fluorescence-labelled oligo:nucleotide(s)
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1 geyih 5
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                                                                                                                                                                                                                                            5 AA;
                                                                                                                                                          Conservative
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95JP-0076873.
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                                                                                                                                                                        56.8%;
75.0%;
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                                                                                                                                                        Score 21; DB 18; Length 5; Pred. No. 6.4e+05; O; Mismatches 1; Indels
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GenCore version 4.5 Copyright (c) 1993 - 2000 Comp

Compugen Ltd

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Post-processing: Minimum Match 0%
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15.422 Million cell updates/sec
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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C5a receptor-antag	AAR75498	16	4	60.0	12	11
Lactoferrin-introd	AAR23938	13	4	60.0	12	10
Sequence of inhibi	AAP40366	ហ	4	60.0	12	9
Presenilin-1-1 res	AAW05773	17	4	65.0	13	8
Anti-inflammatory	AAW56198	19	ω	65.0	13	7
Tumour necrosis fa	AAY90390	21	4	75.0	15	6
P. falciparum FCR3	AAB62145	22	4	80.0	16	ហ
Human HE4 epitope	AAW81781	19	4	80.0	16	4
Human neurofilamen	AAY20704	19	4	80.0	16	ω
Factor Xa substrat	AAR13812	12	4	80.0	16	2
Anti-IL-18 antibod	AAG65301	22	4	100.0	20	_
Description	ID	DB	% Query Match Length DB	% Query Match	Score	Result No.

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AAWI1399 AAY42628 AAY31051 AAAS3866 AAB35867 AAB35867 AAB35867 AAB35867 AAB35867 AAB35867 AAB35867 AAB35867 AAB34662 AAB406969 AAB07173 AAB923359 AAB40411 AAB940354 AAB40354 AAB40354 AAB13806 AAR13806 AAR34871 AAR39390 AAR34071 AAR39390 AAR39390	AAR75499 AAW27455 AAW27456 AAW27457 AAW24457 AAW24497 AAW24497
Murine melanoma an Non-crosslinked prepetide used to mo peptide used to mo of cell antigen rec Mini C-peptide to Opioid peptide SEQ T cell antigen rec Miscellaneous peptional peptide Sequence of hydrol Chromogenic serine Sequence of the sequence of a clear factor Xa substrat Chromogenic substrat Factor Xa substrat Factor Xa substrat Factor Xa substrat Sequence of tetrap sequence of tetrap sequence of the blood Endothelin binding protease-labile freactor Xa cleavage Factor Xa cleavage	eptor-anta dorphin C- dorphin C- dorphin fluor ised fluor ptide used

## ALIGNMENTS

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Anti-IL-18 antibody 2E1 heavy chain CDR3 fragment.

IL-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective; nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant; nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant; immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2El.

WO200158956-A2 Homo sapiens.

09-FEB-2001; 2001WO-US04170. 16-AUG-2001.

10-FEB-2000; 2000US-0181608

(BADI ) BASF AG.

Ghayur T, Dixon RW, Rog Duncan AR, Brocklehurst Lennard SN; Roguska rst SM, M, White Mankovich 'n× Labkovsky B, Shorrock CP, Salfeld J; Thompson JF JE;

WPI; 2001-550020/61.

Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders,

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RESULT
AAR13812
ID AAR1
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AC AAR1
XC AAR1
XX
DT 07-N
XX
DE Fact
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CE Fact
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention provides isolated antibodies, or antigen-binding portions, that are capable of binding to human interleukin-18 (IL-18). The capable of binding to human IL-18 activity in, and treat a clivity in and treat a stip of the control of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                           New labelled tri: or tetra:peptide derivs. - substrates for faqtor Xa assay, with better affinity, selectivity or water solubility
Example 91; Page 25; 46pp; French
                                                                                                                                                                                     Quentin G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Assay; factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Factor Xa substrate peptide
                                                                                                                                       WPI; 1991-267149/36
                                                                                                                                                                                                                                   (SERB-) SERBIO
                                                                                                                                                                                                                                                                                 19-FEB-1990;
                                                                                                                                                                                                                                                                                                                               31-DEC-1990;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR13812;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
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                                                                                                                                                                                     Martinoli JL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 AA
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                                                                                                                                                                                                                                                                                                                               90WO-FR00974.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "L-Arg-HCl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       substrate; affinity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
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Pred. No. 6.4e+05
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22;
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RESULT
AAY20704
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Best Local
                                                                                                                                                              Diagnosing disease by detecting frameshift mutations in RNA or corresponding protein mutations - used to diagnose cancer and neurological diseases, particularly Alzheimer's disease, and a
                                                                                                                                                                                                                        WPI; 1998-609901/51.
N-PSDB; AAX75759.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  glial fibrillary acidic protein; GFAP; p53; semaphorin III; HUPF-1; bcl-2; B-cell leukemia/lymphoma 2 proto-oncogene; HMGP-C; NSP-A; high mobility group protein-C; neuroendocrine specific protein A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; beta-amyloid precursor protein; beta-APP; diagnosis; cancer; frameshift mutation; age-related disease; neurodegenerative disorder; Alzheiner's disease; Down's syndrome; myotonic dystrophy; neuronal; Huntington's disease; multiple sclerosis; alcoholic liver disease; diabetes mellitus type II; microttubule associated protein; Tau; Big Tau ubiquitin B; apolipoprotein E; MAP2; neurofilament-L; neurofilament-M; neurofilament-F; presenilin II; presenilin II; cellular tumour antigen;
                                                                                                                                                                                                                                                                 Burbach JPH,
                                                                                                                                                                                                                                                                                                                                                                            02-APR-1998;
                                                                                                                                                                                                                                                                                                       (UYUT-) RIJKSUNIV UTRECHT.
(ROYA-) ROYAL NETHERLANDS ACAD ARTS & SCI.
                                                                                                                                                                                                                                                                                                                                                10-APR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                         15-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9845322-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The peptides represented in AAR13803-12 are examples of a generic formula. They are substrates for assaying factor Xa (an enzyme involved in haemostasis). Compared with known substrates they have better affinity, selectivity and/or water solubility.
                                                                                                                                                                                                                                                                                             (UYRO-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAY20704;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY20704 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human neurofilament-M wild type protein fragment 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
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                                                                                                                                                  treatment and prevention
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                                                                                                                                                                                                                                                                                             ROTTERDAM ERASMUS
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100.0%; Pr
0;
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                                                                                                                                                                                                                                                                Van Leeuwen FW
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Pred. No.
                                                                                                                                                    with
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                                                                                                                                                  specific ribozymes
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6.4e+05;
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                                                                                                                                                 or wild-type
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This invention describes a novel method for the diagnosis of a disease caused by, or associated with, an RNA molecule that has a frameshift mutation. The method is used to diagnose age-related diseases, especial cancer and a wide range of neurodegenerative disorders (e.g. Alzheimer'

Disclosure; Figure 8; 258pp; English.

disease, Down's syndrome, myotonic dystrophy, Huntington's disemultiple sclerosis, alcoholic liver disease, diabetes mellitus and many others listed) or susceptibility to these disorders. T

disease, s, especially Alzheimer's

type II

method

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RESULT
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Query Match
Best Local S
Matches 3
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               allows a definitive diagnosis of Alzheimer's disease in living patients, at an early stage. It is based on the observation that disease may be caused by mutations in RNA rather than DNA. The invention describes the used of neuronal system RNA molecules, specifically proteins including beta-amyloid precursor protein (beta-APP), the microtubule associated proteins Tau and Big Tau, ubiquitin B, apolipoprotein E, microtubule associated protein 2 (MAP2), neurofilament-L, neurofilament-M, neurofilament-F, presenilin I, presenilin II, glial fibrillary acidic protein (GFAP), the cellular tumour antigen p53, B-cell leukemia/lymphoma 2 (bcl-2) proto-oncogene, semaphorin III, HUPF-1, high mobility group protein-C (HMGP-C) and neuroendocrine specific protein A.
                                                                                                                                                                                                                                                                                                                                                                                            30-NOV-1990;
01-FEB-1990;
                                                                                                                                                                                                                                                      \ensuremath{\mathsf{DNA}} encoding human epididymis polypeptides - useful for, e.g. diagnosis of male infertility
                                                                                                                  This sequence represents a novel human epididymis-specific protein, HE4 epitope fragment. This protein may be used for cloning and for expression of human epididymis-specific polypeptides in prokaryotic or eukaryotic host cells. Such proteins and antibodies generated from them may be used for diagnosis of e.g. male infertility. The polypeptides and antibodies may also be used for treatment of male infertility and for
                                                                                                                                                                                                                                                                                                    WPI; 1998-585748/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EP878544-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HE4; epididymis-specific; diagnosis; male infertility; treatment;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human HE4 epitope peptide #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-FEB-1999
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                                                                                                                                                                                                                            Example 9; Page 19; 29pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                         29-JAN-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sterility; immunosterilisation.
                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                   Ivell R,
                                                                                                                                                                                                                                                                                                                                                              (IHFH-) IHF INST HORMON & FORTPFLANZUNGS
                                                                                                       immunosterilisation of mammals.
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                                                                                                                                                                                                                                                                                                                                   Kirchhoff C;
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90DE-4002981
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              80.0%;
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Pred. No.
               Score 16;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
               DB 19; I
. 6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 19;
6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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                             Length 4;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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Local Similarity hes 3; Conserv

Conservative

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Mismatches

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AAB62145
ID AAB6
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                                                                                 AAY90390
                                                                                            RESULT
                                                                                                                                                                              Matches
                                                                                                                                                                                         Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scherf A,
Gysin J,
                                                                                                                                                                                                                                                                       protein and the encoding gene are useful for treating and preventing maternal malaria in a patient identified at a risk for contracting maternal malaria or in a patient afflicted with maternal malaria. The present sequence represents a fragment of the P. falciparum FCR3.varCSA
                                                                                                                                                                                                                                                                                                                                            The invention relates to a P. falciparum FCR3.varCSA protein, the capable of binding to chondroitin sulfate A (CSA). The var gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P. falciparum FCR3.varCSA protein fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAB62145 standard; peptide; 4 AA.
                                                                                                                                                                                                                                                                                                                     corresponding P.falciparum erythrocyte membrane protein 1 (PFEMP1) modulate adhesion of parasitized red blood cell (PRBC) to CSA. The
                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 21; 78pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                     Novel FCR3.varCSA protein, useful for modulating parasitized cell binding, sequestration and onset of maternal malaria -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-SEP-2000; 2000WO-US24195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200116326-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Plasmodium falciparum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        malaria; protozoacide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      erythrocyte membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FCR3.varCSA protein; chondroitin sulfate A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAB62145;
Tumour necrosis factor inhibitor peptide #15
                        15-JAN-2001 (first entry)
                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                             protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                AAY90390;
                                                                     AAY90390 standard; peptide; 4 AA.
                                                                                                                                                                           Local Similarity
tes 3; Conserv
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Pouvelle B,
                                                                                                                                                                                                                                        4
                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99US-0152023
                                                                                                                                                                        80.0%; 5c.
100.0%; Pro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein 1; parasitized red blood cell; PRBC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gamain B,
Fujii N,
                                                                                                                                                                                         Score 16;
Pred. No.
                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Baruch DI,
Smith J;
                                                                                                                                                                                         DB 22; 1
6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CSA; var gene; PFEMP1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Buffet
                                                                                                                                                                                                     Length 4;
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                                                                                                                                                                                                                                                                                                                                                                                                                 uery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This sequence represents a fragment of a tumour necrosis factor inhibitor of the invention. The inhibitors are antagonists of tumour necrosis factor-alpha (TMF-alpha), comprising less than 15 amino acids, having restricted conformation and capable of binding to TMF p55 and/or TMF p75 receptor. The inhibitors are useful for treating a disease or condition mediated by TMF-alpha such as sepsis syndrome, cachexia, circulatory collapse and shock resulting from acute or chronic bacterial infection; acute and chronic parasitic or infectious processes, including bacterial, viral and fungal infections; acute and chronic immune and autoimmune disorder, such as systemic lupus erythematosus and rheumatoid arthritis, alcohol-induced hepatitis; chronic inflammatory disorder such as sarcoidosis and Crohn's disease; vascular inflammatory disorder such as disseminated intravascular coagulation, graft-versus-host disease, Rawasaki's disease, and malignant disorders involving TMF-alpha-secreting
             Anti-inflammatory; macrophage inhibitory activity; fibronectin; T-cell inhibitory activity; adherence; extracellular matrix; up-regulation; fas receptor expression; inflammation.
                                                                                          Anti-inflammatory tripeptide.
                                                                                                                               20-JUL-1998 (first entry)
                                                                                                                                                                                                         AAW56198 standard; peptide; 3 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tumour necrosis factor; inhibitor; TNF-alpha; TNF p55 receptor; cachexi: TNF p75 receptor; sepsis syndrome; circulatory collapse; infection; immune disorder; autoimmune disorder; systemic lupus erythematosus; rheumatoid arthritis; alcohol-induced hepatitis; inflammatory disorder; sarcoidosis; Crohn's disease; vascular inflammatory disease; therapy; disseminated intravascular coagulation; graft-versus-host disease; mawasaki's disease; malignant disorder; TNF-alpha-secreting tumour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel tumor necrosis factor inhibitors for treating disorders mediated by tumor necrosis factor alpha activity e.g. autoimmune disorders, pathogenic infections, malignant tumors and cachexia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Camours
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Jameson BA,
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                                                                                                                                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                  75.0%; bu
100.0%; Pr
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                                                                                                                                                                                                                                                                                                                                                                                               Score 15; pred. No.
                                                                                                                                                                                                                                                                                                                                                                            Mismatches
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. 6.4e+05;
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Best Local
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03-SEP-1996;
20-NOV-1996;
29-APR-1996;
                            31-OCT-1996
                                                                                   Homo sapiens
                                                                                                              depression; antibody; gene expression modulator; therapy; mutein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  inflammation. The peptides also inhibit the ability or macrophages and T-cells to adhere to extracellular matrix components and fibronectin, well as up-regulated fas receptor expression in T-cells. They can be used to inhibit unwanted immune reaction and inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    agents. The peptides can be covalently linked to one another either directly or through a spacer. The peptides and their derivatives have macrophage inhibitory and T-cell inhibitory activity and thus, anti-inflammatory activity. The peptides and compositions have anti-immune activity, i.e. inhibitory effects against a cellular and humoral immune response, including a response not associated with inflammation. The peptides also inhibit the ability of macrophages and
                                                         WO9634099-A2
                                                                                                                            Presenilin-1; human; hPS1-1; hPS1-2; PS-2; integral membranė protein; familial Alzheimer's disease; cerebral haemorrhage; schizophrenia;
                                                                                                                                                                        Presenilin-1-1 residues 109-112.
                                                                                                                                                                                                     28-JUL-1997
                                                                                                                                                                                                                                  AAW05773;
                                                                                                                                                                                                                                                         AAW05773 standard; peptide; 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Xaa = any amino acid residue.
Cyclic derivatives of the peptides also function as anti-inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Xaa-Glu-Arg, Arg-Glu-Xaa, Xaa-Arg-Glu, or Glu-arg-Xaa, where
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW56171-248 represent anti-inflamm
They are derived from the formulae:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Anti-inflammatory peptides and derivatives - used for treating, e.g. arthritis, ulcerative colitis, auto-immune disease, allergy asthma, shock, HIV infection, transplant rejection or Alzheimer's disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 5; Page 34; 42pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1998-193550/17.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (YEDA ) YEDA RES & DEV CO LTD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 AA;
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                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eisenbachschwartz M,
96WO-CA00263
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96US-0025376.
96US-0753141.
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                                                                                                                                                                                                                                                                                                                                                                                                        65.0%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               anti-inflammatory tripeptides of the invention
                                                                                                                                                                                                                                                                                                                                                                                                      Score 13;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hirschberg DL;
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tches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                       DB 19;
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RESULT
AAP40366
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CC presentlin-1-1 protein (see AAW05733 for wild type sequence). AAW05734 CC presents a different wild type form of presentlin-1 that results from the presents a different wild type form of presentlin-1 that results from the presents a different wild type form of presentlin-1 that results from the presents of the genomic DNA sequence. The presentlins are a family of highly conserved integral membrane proteins with a common structural motif, common alternate splicing patterns, and common the present of the present of the present of the present of the common and the patterns of the genes are implicated in the multiple sequences of the genes are implicated in the common sequences of the proteins of the proteins, or vectors that the proteins of the wild type sequences can be used for these mutant forms of the proteins and modulators of PS gene expression the contentially useful for treatment of AD etc. Transgenic animals are useful as models for drug screening. The antibodies can also be used e.g. the protein of th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
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28-APR-1995;
28-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAP40366 standard; peptide; 4 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 71; Page -; 178pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New presenilin genes - useful for diagnosis, therapy and drug screening of familial Alzheimer's disease, cerebral disorders,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1996-497631/49.
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                                                                                                                                                                                                                         BE897844-A.
                                                                                     01-OCT-1982;
                                                                                                                                                                                                                                                                                           Modified-site
                                                                                                                                                                                                                                                                                                                                                         Pancreatitis therapy; emphysema; arthritis
                                                                                                                                                                                                                                                                                                                                                                                                      Sequence of inhibitor of pancreatic and leucocytic elastase
                                                                                                                                                                                                                                                                                                                                                                                                                                                     11-FEB-1992 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAP40366;
                                                                                                                                  27-SEP-1983;
                                                                                                                                                                               16-JAN-1984.
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                  (SPOF ) SPOFA SPOJENE PODN
(KASA/) KASAFIREK E.
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UNIV TORONTO GOVERNING COUNCIL
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2; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
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95US-0431048.
95US-0496841.
                                                                                     82CS-0007013
                                                                                                                                  83BE-0897844
                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                    /label= N-alpha-ac-Asp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         65.0%;
66.7%;
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Best Local
             Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The peptides of the invention may be used to treat acute pancreatitis, chronic obstructive pulmonary disease (pulmonary emphysema) and certain forms of arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tri:peptide and tetra:peptide elastase inhibitors - used to treat acute pancreatitis, chronic obstructive pulmonary disease e.g. emphysema and some forms of arthritis
                                                                                            The sequences given in AAR23931 - AAR23938 are synthetic peptides which were introduced into human lactoferrin (LF) by introducing the DNA encoding the peptide into the human LF gene and then incubating the mixture. The introduction of the peptide caused increased transformation rates compared to unmodified LF and this method could be used to introduce an exogenous gene into an animal cell with no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1984-037109/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kasafirek E,
                                                                                                                                                                                  Disclosure; Page 5; 10pp; Japanese.
                                                                                                                                                                                                                                             WPI; 1992-171655/21.
                                                                                                                                                                                                                                                                                                                                             09-APR-1992
                                                                                                                                                                                                                                                                                                                                                                    JP04108390-A.
                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                   Human lactoferrin; LF; transformation; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                         Lactoferrin-introduced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-NOV-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR23938;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAR23938 standard;
                                                             Sequence
                                                                                                                                                                                                       Introduction of foreign genes into animal cells – using complex comprising the gene with lactoferrin.
                                                                                                                                                                                                                                                                                             29-AUG-1990;
                                                                                                                                                                                                                                                                                                                    29-AUG-1990;
                                                                                                                                                                                                                                                                    (SNOW ) SNOW BRAND MILK PRO
Local Similarity hes 2; Conserv
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2; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4 AA;
                                                             4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
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                                                                                                                                                                                                                                                                                              90JP-0227619
                                                                                                                                                                                                                                                                                                                     90JP-0227619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60.0%;
66.7%;
               60.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                           peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 12;
Pred. No.
   Score 12; DB
Pred. No. 6.4e
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6.4e+05;
                6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB
                             DB 13;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
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                          Length 4;
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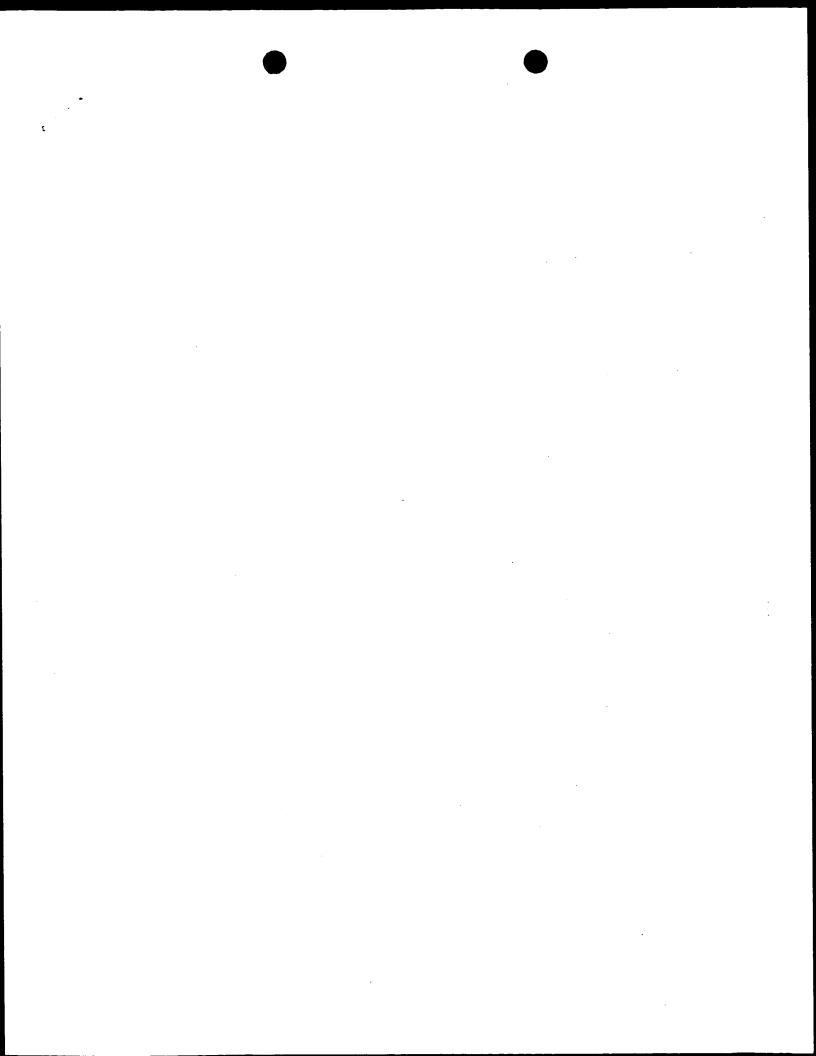
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RESULT 1
AAR75498
ID AAR7
XX
AC AAR7
XX
DT 13-N
XX
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Best Local S
Matches 2
          16-NOV-1994;
                                                  WO9516033-A
                                                                     Homo sapiens
                                                                                      C5a; C5a receptor-antagonist; antiinflammatory.
                                                                                                           C5a receptor-antagonist core tetrapeptide.
                                                                                                                                13-NOV-1995
                                                                                                                                                    AAR75499;
                                                                                                                                                                      AAR75499 standard; Peptide; 4 AA
                                                                                                                                                                                                                                                                                                                              Polypeptide receptor antagonists to C5a contain an essential core tetrapeptide (AAR75498 or AAR75499) or core tripeptide (DGA) which displays C5a blocking activity.
                              15.JUN-1995.
                                                                                                                                                                                                                                                                                                                                                                                           C5a receptor antagonists having no agonist activity - are used in compsns. to treat C5a-mediated diseases and inflammatory condition
                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Page 36;
                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1995-224319/29
                                                                                                                                                                                                                                                                                                                                                                                                                                             Boyar WC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-DEC-1993;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9516033-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C5a; C5a receptor-antagonist; antiinflammatory.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAR75498;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-NOV-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C5a receptor-antagonist core tetrapeptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAR75498 standard;
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                                                                                                                                                                                          12
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2 dga 4
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2 kkg 4
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                                                                                                                                                                                                                                                               Conservative
                                                                                                                              (first entry)
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          94WO-IB00359
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peptide;
                                                                                                                                                                                                                                                                       60.0%;
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                                                                                                                                                                                                                                                                                                                                                                        English.
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Pred. No. 6.4e+05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                           Van Oostrum J;
                                                                                                                                                                                                                                                                                                                                                                                          inflammatory conditions
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RESULT 1
AAW27455
ID AAW2
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                This peptide is an active carboxy-terminal fragment derived from beta-endorphin. The peptide or an active analogue can be used in the manufacture of a medicament for the treatment of diabetes mellitus, by increasing uptake of blood glucose in muscle. The peptide does not include the opioid amino-terminal region of beta-endorphin, and enhances
Sequence
                                                                                                       Claim 8; Page 11; 18pp; English.
                     uptake of glucose into muscle by a non-insulin dependent route.
                                                                                                                                 blood glucose in muscle
                                                                                                                                            Use of peptide including active carboxy-terminal fragment of beta-endorphin - to treat diabetes mellitus or increase uptake
                                                                                                                                                                                  WPI; 1997-489388/45.
                                                                                                                                                                                                                                                                                                      02-OCT-1997
                                                                                                                                                                                                                                                                                                                                                      Class Mammalia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Polypeptide receptor antagonists to C5a contain an essential core tetrapeptide (AAR75498 or AAR75499) or core tripeptide (DGA) which displays C5a blocking activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         {\tt C5a} receptor antagonists having no agonist activity - are used in compsns. to treat {\tt C5a-mediated} diseases and inflammatory conditions
                                                                                                                                                                                                          Smith ME;
                                                                                                                                                                                                                                 (UNBI ) UNIV BIRMINGHAM
                                                                                                                                                                                                                                                         22-MAR-1996;
                                                                                                                                                                                                                                                                                21-MAR-1997;
                                                                                                                                                                                                                                                                                                                              W09735608-A1
                                                                                                                                                                                                                                                                                                                                                                           Beta-endorphin; diabetes mellitus; glucose uptake; insulin; muscle.
                                                                                                                                                                                                                                                                                                                                                                                                   Beta-endorphin C-terminal fragment 1.
                                                                                                                                                                                                                                                                                                                                                                                                                            21-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW27455;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAW27455 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1995-224319/29.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-DEC-1993;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                         96GB-0006076
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60.0%;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 16;
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ies 0;
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RESULT
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AAW27456
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Best Local Similarity
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                                                                                                                                                                                                                                                                                         This peptide is an active carboxy-terminal fragment derived from beta-endorphin. The peptide or an active analogue can be used in the manufacture of a medicament for the treatment of diabetes mellitus, by increasing uptake of blood glucose in muscle. The peptide does not include the opioid amino-terminal region of beta-endorphin, and enhances
                                                                                                             7457
Beta-endorphin; diabetes mellitus; glucose uptake; insulin; muscle.
                                                                                                                                                                                                                                                                                                                                                                                                Use of peptide including active carboxy-terminal fragment of beta-endorphin - to treat diabetes mellitus or increase uptake
                          Beta-endorphin C-terminal fragment 3.
                                                  21-APR-1998
                                                                                           AAW27457 standard; peptide; 4 AA.
                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                Claim 8; Page 11; 18pp; English.
                                                                                                                                                                                                                                                                                                                                                                                       blood glucose in muscle
                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1997-489388/45.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-MAR-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Beta-endorphin; diabetes mellitus; glucose uptake; insulin; muscle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Beta-endorphin C-terminal fragment 2.
                                                                                                                                                                                                                                                                               uptake of glucose into muscle by a non-insulin dependent route.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (UNBI ) UNIV BIRMINGHAM
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1 kkg 3
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nes 2; Conserv
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                                                                                                                                                                                                                                                            4 AA;
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                                                 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                peptide; 4
                                                                                                                                                                                                             60.0%;
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66.7%;
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                                                                                                                                                                                                Score 12; DB 10,
Pred. No. 6.4e+05;
Pred. No. 6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 12; DB 18;
Pred. No. 6.4e+05;
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Query Match
Best Local S
Matches 2
                                                                                                                                        This peptide is an active carboxy-terminal fragment derived from beta-endorphin. The peptide or an active analogue can be used in the manufacture of a medicament for the treatment of diabetes mellitus, by increasing uptake of blood glucose in muscle. Although a known peptide, this modified form is more stable and can be administered orally, as compaared to the unmodified form which is given intravenously, subcutaneously or intramuscularly. The peptide does not include the opioid amino-terminal region of beta-endorphin, and enhance uptake of glucose into muscle by a non-insulin dependent route.
                                                                                                                   Sequence
                                                                                                                                                                                                                                                                       Claim 12; Page 11; 18pp; English.
                                                                                                                                                                                                                                                                                                   blood glucose in muscle
                                                                                                                                                                                                                                                                                                            Use of peptide including active carboxy-terminal fragment of beta-endorphin - to treat diabetes mellitus or increase uptake of
                                                                                                                                                                                                                                                                                                                                                     WPI; 1997-489388/45.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Class Mammalia
                                                                                                                                                                                                                                                                                                                                                                                                       (UNBI ) UNIV BIRMINGHAM
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  \vdash
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kkg
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2; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "Sarcosine"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "D-form residue"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "N-terminal acetyl"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'label= MeGly
                                                              60.0%;
                                                              Score 12; DB 18;
Pred. No. 6.4e+05;
                                                  Mismatches
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Search completed:
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GenCore version Copyright (c) 1993 - 2000

4.5 Compugen Ltd

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Listing first 45 summaries
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AAY95217
                                                    Abl variable light Light chain CDR3 o Light chain CDR2 o Anti-hIL12 antibod Human anti-GPIIb/I
                                                                                                                                                                                                              Anti-platelet glyc
Anti-platelet glyc
Anti-IL-18 antibod
Complementarity de
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Anti-IgE antibody Anti-hIL-12 antib
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AAR33815	AAR06760	AAG65314	AAY63148	AAY63118	AAB01542	AAB15429	AAR96652	AAR33819	AAY63147	AAY63117	AAY20765	AAR77331	AAB29546	AAB80721	AAG62817	AAB40016	AAB40017	AAB40015	AAB40011	AAB66404	AAB61297	AAB61285	AAY95207	AAB52206	AAW90304	AAR73900	AAR54140	AAY79089	AAW90831	AAB40014	AAB40013	AAB40012	AAB40001
Selectin binding i	r necrosis	Anti-IL-18 antibod	n cel	cel	Plasmin substrate	Cell differentiati	Kininogen-derived	Selectin binding i	LI-cadherin cell a			Human apolipoprote	Adhesion-modulator	2	Amino acid sequenc	Anti-hIL12 antibod	Anti-hIL12 antibod	N	Anti-hIL12 antibod	Anti-TANGO 268 scF	-TANGO	268	let g	anti-H	വ	Haemophilus influe	255	Anti-factor IX/IXa	nervous	Anti-hIL12 antibod	Anti-hIL12 antibod	Anti-hIL12 antibod	2 a

## ALIGNMENTS

## RESULT AAY95196 Variable light chain; single chain antibody; scFv; human; HIb-1; glycoprotein Ib alpha; platelet; aggregation; antiaggregant; antithrombotic; thrombus; therapy; diagnostic; CDR2; 11-MAY-2000. WO200026667-A1. Homo sapiens. complementarity determining region. Anti-platelet glycoprotein Ib human HIb-1 VL CDR2. 29-AUG-2000 (first entry) AAY95196 standard; Peptide; 7 29-OCT-1999; 99WO-US25495. AA

Isolated nucleic acid molecule encoding anti-human platelet glycoprotein Ib alpha molecule useful for producing antibodies which inhibit platelet aggregation -  $\$ WPI; 2000-365744/31.

(MILL/) MILLER J L. 30-OCT-1998;

98US-0106275.

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CCC XXX
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                       Variable light chain; single chain antibody; scFv; human; HIb-3; glycoprotein Ib alpha; platelet; aggregation; antiaggregant; antithrombotic; thrombus; therapy; diagnostic; CDR2;
                             Claim 20; Fig 7; 89pp; English.
                                                                                  Isolated nucleic acid molecule encoding anti-human platelet glycoprotein Ib alpha molecule useful for producing antibod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 are composed of native human protein sequences and are therefore attractive potential reagents for therapeutic purposes. They provide a new class of antithrombotic agents, useful for the prevention of platelet-dependent thrombi in diseased arteries, bypass grafts, dialysis etc., and can also be used as diagnostic reagents. Methods of inhibiting aggregation of platelets, of binding human platelet epris alpha and of selecting a VH or VL region of an antibody that inhibits platelet aggregation are claimed. Fragments of the scFV VH or VL chain, including CDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present sequence is that of complementarity determining region 2 (CDR2) of the light chain variable region (VL) of human single chain antibody (scFv) HIB-1 (see ANY9519B), which is directed against platelet glycoprotein Ib (GPID). The HID series of scFv was isolated from a human synthetic VH and VL scFv library on the basis of their binding to platelet GPID. Whether displayed as
                                                                                                                                                                                                                                                   30-OCT-1998;
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                                                                                                                                                                                                                                                                                                                         11-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY95217 standard; Peptide; 7 AA
                                                                inhibit platelet aggregation
                                                                                                                                                                                                               (MILL/) MILLER J L.
                                                                                                                                                                                                                                                                                                                                                          W0200026667-A1
                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                              complementarity determining region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Anti-platelet glycoprotein Ib human HIb-3 VL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-AUG-2000 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            basis of their binding to platelet GPIb. Whether displayed as surface proteins on a phagemid or secreted as free scFv by surface protein, the HIB scFv clones are capable of inhibiting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 20; Fig 5; 89pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        fragments, are also claimed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             von Willebrand factor-dependent aggregation of platelets.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 gknnrps 7
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                                                                                                                                         2000-365744/31.
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                                                                                                                                                                                                                                                   98US-0106275.
                                                                                                                                                                                                                                                                                      99WO-US25495
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Pred. No. 6.4e+05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 21; Length 7;
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                                                                                    antibodies which
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The present sequence is

that of

complementarity determining region

The invention provides isolated antibodies, or antigen-binding portions, that are capable of binding to human interleukin-18 (IL-18). The antibodies may be used to inhibit human IL-18 activity in, and treat a

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Best Local S
Matches 7
                                                                                                  Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders, neurological disorders, heart failure, myocardial infarction, and autoimmune diseases -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 (CDR2) of the light chain variable region (VL) of human single chain antibody (scFv) HID-3 (see ANY5219), which is directed against platelet glycoprotein Ib (GPIb). The HID series of scFv was isolated from a human synthetic VH and VL scFv library on the basis of their binding to platelet GPIb. Whether displayed as surface proteins on a phagemid or secreted as free scFv by Escherichia coli, the HID scFv clones are capable of inhibiting von Willebrand factor-dependent aggregation of platelets. The scFv are composed of native human protein sequences and are therefore attractive potential reagents for therapeutic purposes. They provide a new class of aniththrombotic capants useful for the
                                                               Claim 27; Page 38; 91pp; English.
                                                                                                                                                                                                                                            Ghayur T,
Duncan AR,
                                                                                                                                                                                         WPI; 2001-550020/61.
                                                                                                                                                                                                                                                                                                                                                            09-FEB-2001; 2001WO-US04170
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           II-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective; nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant; immunosuppressive; antidepressant; neuroleptic; hepatotropic; 2E1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Anti-IL-18 antibody 2El light chain CDR2 fragment.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  provide a new class of antithrombotic agents, useful for the prevention of platelet-dependent thrombi in diseased arteries, bypass grafts, dialysis etc., and can also be used as diagnostic reagents. Methods of inhibiting aggregation of platelets, of binding human platelet GPID alpha and of selecting a VH or VL region of an antibody that inhibits platelet aggregation are claimed. Fragments of the scFV VH or VL chain, including CDR
                                                                                                                                                                                                                          Lennard SN;
                                                                                                                                                                                                                                                                                             (BADI ) BASF AG.
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mes 7; Conser
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                                                                                                                                                                                                                                                            Dixon
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ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                            Brocklehurst
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                                                                                                                                                                                                                                                            RW,
                                                                                                                                                                                                                                          Roguska M, White M, rst SM, Mankovich J,
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Pred. No. 6.4e+05;
Mismatches 0;
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Shorrock CP,
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Thompson JE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          disorder where IL-18 is detrimental in, a human subject suffering from, inflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease, inflammatory bowel disease, and osteoarthritis), neurological disorders (e.g., Huntington's chorea, Parkinson's disease, Alzheimer's disease, at
                             The present sequence represents a complementarity determining region (CDR) of a single chain (ScFv) antibody of the invention. The specification describes a substance can inhibit the binding between hepatitis C virus (HCV) and cells with potential HCV infection, cells with expression of CD81, or CD81. This substance is especially an antibody with affinity towards HCV EZ/NS1 protein, containing amino acid sequences based on the CDR1, CDR2 and CDR3 of the H and L chain variable regions. The antibody inhibits the viral envelope glycoprotein. It is also a CDB1 inhibitor. The antibodies and drugs are used for the tenth of the containing the contain
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 24; Page 75; 138pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 glycoprotein or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Remedies for hepatitis C containing e.g. antibodies, proteins, sulfated compounds, by inhibiting binding of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-496986/54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Itami S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-FEB-2000; 2000JP-0034906.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-FEB-2001; 2001WO-JP00967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200158459-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    envelope glycoprotein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Complementarity determining hepatitis C virus; HCV; HCV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Complementarity determining region (CDR) 2 of ScFv1-4 H chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAG63624 standard; peptide; 7 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (MITS-) MITSUBISHI-TOKYO PHARM INC.
    treatment and/or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity nes 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GKNNRPS 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                autoimmune hepatitis and autoimmune neutropaenia, and mental diago, depression and schizophrenia). Treatment with an anti-IL-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gknnrps 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  heart failure, myocardial infarction, autoimmune diseases such
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Shibui T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
prevention of hepatitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
100.0%;
ative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Seki M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     region; CDR; single chain autibody; ScFv; infection; CD81; E2 protein; NS1 protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 39;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Yotsumoto Y, Matsuura Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   substances with antiviral effects polysaccharides and low-molecular hepatitis C virus envelope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 22;
         or
         for diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and mental disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Miyamura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
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   AAY06691
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
                                                                                                (TPO). They can stimulate proliferation, differentiation or growth of megakaryocytes. They may also be able to stimulate megakaryocytes to increase platelet production. They can be used for treating immunological or hematopoietic disorders, especially thrombocytopenia. Thrombocytopenia -associated bone marrow hypoplasia (e.g. aplastic anemia following chemotherapy or bone marrow transplant) may be effectively treated with the antibody compounds as well as disorders such as disseminated intravascular coagulation (DIC), immune thrombocytopenia (HIV-induced and non HIV-induced), chronic idiopathic thrombocytopenia, congenital thrombocytopenia, thrombotytopenia and so be used in e.g. myelotoxic chemotherapy for treatment of solid tumours or lowered; myelotoxic chemotherapy for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Agonist antibody; thrombopoietin receptor; TPO-R; thrombopoietin; DIC; megakaryocyte; platelet; immunological; hematopoietic; thrombocytopenia; bone marrow hypoplasia; disseminated intravascular coagulation; anemia; myelodysplasia; myelotoxic chemotherapy; leukaemia; tumour; MuSK; CDR; neuromuscular; muscular dystrophy; complementarity determining region; variable heavy chain; variable light chain; VH; VL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY06691 standard; Protein; 7 AA
used for improving neuromuscular dystrophy. The products can also
                 treatment of solid tumours or leukaemia, myeloablative chemotherapy for autologous or allogeneic bone marrow transplant, myelodysplasia, and immune idiopathic aplastic anemia, congenital thrombocytopenia, and immune thrombocytopenia. The antibodies which bind to the MuSK receptor can be used for improving neuromuscular function in a patient, e.g. in muscular
                                                                                                                                                                                                                                                                                                          The invention relates to an agonist antibody (Ab) which binds to a thrombopoietin receptor (TPO-R). The antibodies which bind the TPO-R cibe used in the same way and for the same indications as thrombopoietin
                                                                                                                                                                                                                                                                                                                                                                                     Claim 10; Page 75; 86pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Adams CW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Abl variable light (VL) chain CDR2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY06691;
                                                                                                                                                                                                                                                                                                                                                                                                                        New thrombopoietin receptor agonist antibodies treating immunological or hematological disorde
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-204666/17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Carter PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97US-0918148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-US17364.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            87.2%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fendly BM,
                                                                                                                                                                                                                                                                                                                                                                                                                            hematological disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
   also be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 34;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gurney AL;
     used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB
     for detection and diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22;
                                                                                                                                                                                                                                                                                                                                                                                                                                             - useful
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     in muscular 
iagnosis. The
                                                                                                                                                                                                                                                                                                                                       TPO-R can
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           Query Match
 Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                        AAW39827-29 represent the sequences of the light chain complementarity determining regions (CDRs) of the catalytic antibody 9A3, which is able to degrade cocaine. A series of cocaine transition state analogues (TSAs) were prepared and used to immunise mice for production of hybridomas. Catalytic antibodies were identified by their capacity to release 3H-benzoic acid from 3H-phenyl cocaine. The 9A3 antibody was identified using TSA1, which is an immunogenic conjugate of a phosphate monoester transition state analogue. Antibody 9A3 has a per minute Kcat of 0.015. The antibodies reduce the concentration of cocaine in a subject, and are used particularly for the treatment of an overdose. They
                                                                                                                                                                                                                                                                                                                                                     New catalytic antibodies able to decompose cocaine, single-chain analogues - used to treat cocaine overdose and addiction, required in far smaller doses than antibodies that antagonise cocaine by
                                                               Sequence
                                                                                                                                                                                                                                                                                                         Claim 6; Page 84; 147pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1998-077166/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Variable domain; lambda light chain; catalytic antibody; degradation; cocaine; cocaine transition state analogue; TSA; benzoic acid; cocaine; immunogenic conjugate; reduction; cocaine; treatment;
                                                                                               concentration that can be achieved).
                                                                                                                                                                                                                                                                                                                                          simply binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-DEC-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9749800-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                overdose; addiction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW39828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW39828 standard; peptide; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antibodies have a longer half-life than the natural ligand for the TPO-R. Sequences AAY06687-Y06712 represent CDR1, CDR2, and CDR3 regions of variable heavy (VH) chains and variable light (VL) chains of antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (UYCO ) UNIV COLUMBIA NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Light chain CDR3 of catalytic antibody 9A3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16-JUN-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 gnsnrps 7
                                                                                                                also used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             σ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                         for treating addiction (by reducing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96US-0672345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97WO-US10965
 61.5%;
100.0%;
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71.48;
 Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 29; DB 20;
Pred. No. 6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
 . 24;
No.
DB 19;
6.4e+05;
             Length 7;
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                                                                                                              in vivo
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AAB40010 ID AAB4

AAB40010 standard; Peptide; 7 AA

RESULT

8

В

w 3 NNRP 6

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Matches

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Conservative

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Query Match
Best Local
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                                                                                                    determining regions (CDRs) of the catalytic antibody 1968, which is able to degrade occaine. A series of cocaine transition state analogues (TSAs) were prepared and used to immunise mice for production of hybridomas. Catalytic antibodies were identified by their capacity to release 3H-benzoic acid from 3H-phenyl cocaine. The 1968 antibody was identified using TSAI, which is an immunogenic conjugate of a phosphate monoester transition state analogue. Antibody 1968 has a per minute Kcat of 0.091. The antibodies reduce the concentration of cocaine in a subject, and are used particularly for the treatment of an overdose. They are also used for treating addiction (by reducing the in vivo
                                                                                                                                                                                                                                                    AAW39830-32 represent the sequences of the light chain complementarity determining regions (CDRs) of the catalytic antibody 1968, which is able
                                                              Sequence
                                                                                              concentration that can be achieved).
                                                                                                                                                                                                                                                                                                      Claim 4; Page 85; 147pp; English.
                                                                                                                                                                                                                                                                                                                                      simply binding
                                                                                                                                                                                                                                                                                                                                                     New catalytic antibodies able to decompose cocaine, single-chain analogues - used to treat cocaine overdose and addiction, required in far smaller doses than antibodies that antagonise cocaine by
                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1998-077166/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Landry DW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UYCO ) UNIV COLUMBIA NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31-DEC-1997.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        overdose; addiction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      phenyl cocaine; immunogenic conjugate; reduction; cocaine; treatment;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cocaine; cocaine transition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Variable domain; lambda light chain; catalytic antibody; degradation; cocaine; cocaine transition state analogue; TSA; benzoic acid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Light chain CDR2 of catalytic antibody 1968.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW39831;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW39831 standard; peptide; 7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-JUN-1998
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 Similarity
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                                                                  7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96US-0672345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97WO-US10965
61.5%;
Score 24;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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DB 19;
6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
              Length 7;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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AAB40010;

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밁
                                    ρ
                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                        This invention relates to a new human antibody specific for human interleukin-12 (IL-12). The invention also includes antiqen binding portions that bind to IL-12. Sequences AAB39485-B39516 represent human anti-IL-12 antibody heavy and light chain complementarity determining region (CDR) amino acid sequences, and also includes variable region amino acid sequences. Other variable region amino acid sequences are given in AAB39517-B39560 and AAB40068-B40149. Sequences AAB39561-B39771 represent anti-IL-12 CDR3 related amino acid sequences, AAB39572-B40063 represent other CDR sequences. Light chain CDR3 consensus sequences are given in AAB40064-B40067. Primers used in the identification and AAB60067-C61071. The antibodies of the invention are given in AAB40068-C61071. The antibodies of the invention is a neutralising antibody and hes antibody of the invention is a neutralising
                                                                                                                                                                                                                          The antibodies or antigen-binding fragments are useful in the treatment of disorders associated with detrimental release of human II-12, especially Crohn's disease, multiple scherosis and rheumatoid arthritis. They can also be used in the manufacture of a pharmaceutical composition
                                                                                                                                                                                                                                                                                                      antiinflammatory; neuroprotective; antipsoriatic; antiasthmatic;
cardiant; antiparasitic; antibacterial and immunosuppressive activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 33; Figure 2G; 377pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kaymakcalan Z, Labkovsky
Veldman GM, Venturini A,
Derbyshire EJ, Carmen S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antisclerotic; neuroprotective; antipsoriatic; antiasthmatic; cardiant;
antiparasitic; antibacterial; immunosuppressive; Crohn's disease;
                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                          antibody and has antirheumatic; antiarthritic; antisclerotic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        disease and multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New human antibody specific for human interleukin-12 (IL-12) used to treat disorders characterized by aberrant IL-12 expression e.g. Crohn's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2000-638250/61.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Salfeld JG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200056772-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  multiple sclerosis; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (BADI ) BASF AG. (GEMY ) GENETICS INST INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-MAR-2000; 2000WO-US07946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          complementarity determining region; CDR; antirheumatic; antiarthritic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; neutralising antibody; interleukin-12; IL-12; antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Anti-hIL12 antibody light chain CDR2 amino acid sequence SEQ ID 526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-MAR-1999;
                                                                                                Local Similarity
                                                                                                                                                                                                              treat
                                        1 GKNNRPS 7
gndsrps 7
                                                                          4;
                                                                                                                                                                                                              human IL-12 disorders.
                                                                                                                                                                        7 AA;
                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Roguska M, Paskind M,
Z, Labkovsky B, Sakoraf
Venturini A, Warne NW,
J, Carmen S, Smith S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-0126603
                                                                                            61.5%;
57.1%;
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Sakorafas P, Friedrich S, My
Warne NW, Widom A, Elvin JG, Di
Wmith S, Holtet TL, Du Fou SL;
                                                                                              Score 24; DB 21;
Pred. No. 6.4e+05;
                                                                            Mismatches
                                                                                                                DB 21;
                                                                                                              Length 7;
                                                                            Indels
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Duncan AR;
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RESULT

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AAB30605
ID AAB3
XX
AC AAB3
XZ
DT 19-N
XX
DE Anti
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Best Local :
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06-JUN-1997;
12-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                      for diagnosis (including monitoring and determining predisposition), prevention and treatment of autoimmune thrombocytopaenic purpura (ATTF and also for modulating binding of fibrinogen to thrombocytes (particularly to dissolve thrombi and/or prevent their formation, e.g. in cases of cardiac infarction or pulmonary embolism). Unlike murine antibodies, human antibodies (abb) do not induce adverse side effects and persist for longer in vivo than small peptides. AAM90293-W90337 represent antibody fragments used in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This invention describes novel nucleic acid fragments that encode human auto-antibodies and anti-idiotypic antibodies against blood platelet membrane protein, GPIIb/IIIa. The products of the invention are used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nucleic acid encoding human autoantibodies against platelet glycoprotein IIb/IIIa - used for diagnosis, treatment and prevention of autoimmune thrombocytopaenic purpura and for modulation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antibody; GPIIb/IIIa; human; auto-antibody; anti-idiotypic; diagnosis; blood platelet membrane protein; predisposition; prevention; treatment; autoimmune thrombocytopaenic purpura; AITP; fibrinogen binding; thrombi;
                Anti-IgE antibody light chain complementarity determining region
                                                                                                        AAB30605 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 6a; Page 6; 93pp; German.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-SEP-1999 (first entry)
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                                                                                                                                                                                                                                                                                                                            Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUN-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       thrombocyte; cardiac infarction; pulmonary embolism; light chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human anti-GPIIb/IIIa auto-antibody light chain protein CDR2 region 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               fibrinogen binding
                                                                                                                                                                                                                                                                Local Similarity
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                                                                                                                                                                                                                  1 GKNNRPS 7
                                                                                                                                                                                     gshqrps
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                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                              AA;
                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AG APPLIED SCI & TECHNOLOGY.
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97DE-1023904.
97DE-1055227.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-EP03397
                                                                                                                                                                                                                                                              59.0%;
57.1%;
                                                                                                                                                                                                                                                                Score 23; DB 20;
Pred. No. 6.4e+05;
                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                              Length 7;
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                                                                                                                                                                                                                                               Gaps
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RESULT 1
AAB39504
ID AAB3
XX AAB
XX AAB
AC AAB
XX D5-1
XX AT
DT 05-1
XX Hum
KW Hum
KW Comm
KW Comm
KW ant
KW BOD
XX HOM
X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB30595-B30606 represent complementarity determining regions (CDRs) from human anti-diotype antibodies that interfere with the binding of the C-epsilon3 region of immunoglobulin (Ig)E to the high affinity receptor for IgE, i.e. and anti-IgE antibody. Such an antibody is referred to as a mimobody. The anti-IgE antibody fragment is used as a vaccine, and as a pharmaceutical for treating IgE-mediated diseases such as allergy, in particular asthma, atopic dermatitis, rhinitis, chronic urticaria and food allergies. It is also used to treat IgE-mediated diseases. It is also used for raising polyclonal or monoclonal antibodies. The polyclonal or monoclonal antibodies obtained are useful
                                                                                                                                                                                                             Human; neutralising antibody; interleukin-12; IL-12; antiinflammatory; complementarity determining region; CDR; antirheumatic; antiarthritic; antisclerotic; neuroprotective; antipsoriatic; antiasthmatic; cardiant; antiparasitic; antibacterial; immunosuppressive; Crohn's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Anti-idiotype antibody; C-epsilon3 region; immunoglobulin E; IgE; anti-IgE antibody; mimobody; vaccine; allergy; asthma; atopic der rhinitis; chronic urticaria; food allergy; IgE-mediated disease; passive immunisation.
                                                            WO200056772-A1
                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                     Anti-hIL-12 antibody light chain CDR2 amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                        05-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB39504;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB39504 standard; Protein; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 5; Page 67; 73pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel anti-idiotypic antibody against antibodies which inhibit binding of immunoglobulin E to its high affinity receptor, useful in vaccines for treating diseases such as allergy, rhinitis, atopic dermatitis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2000-687161/67
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3 snrps 7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  treating IgE-mediated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NOVARTIS AG.
NOVARTIS-ERFINDUNGEN VERW
                                                                                                                                                                                       sclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
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                                                                                                                                                                                       rheumatoid arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    59.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 23;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
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6.4e+05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This invention relates to a new human antibody specific for human interleukin-12 (IL-12). The invention also includes antigen binding portions that bind to IL-12. Sequences ARB39485-B39516 represent human anti-IL-12 antibody heavy and light chain complementarity determining region (CDR) amino acid sequences, and also includes variable region amino acid sequences. Other variable region amino acid sequences are given in AAB39517-B39560 and AAB40068-B40149. Sequences AAB39772-B40063 represent anti-IL-12 CDR3 related amino acid sequences, AAB39772-B40063 represent other CDR sequences. Light chain CDR3 consensus sequences are given in AAB40064-B40067. Primers used in the identification and construction of the antibodies of the invention are given in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New human antibody specific for human treat disorders characterized by aberr disease and mu/ttiple sclerosis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The antibodies or antigen-binding fragments are useful in the treatment of disorders associated with detrimental release of human IL-12, especially Crohn's disease, multiple sclerosis and rheumatoid arthritis. They can also be used in the manufacture of a pharmaceutical composition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAC61062-C61071. The antibody of the invention is a neutralising antibody and has antirheumatic; antiarthritic; antisclerotic; antiinflammatory; neuroprotective; antipsoriatic; antiasthmatic; cardiant; antiparasitic; antibacterial and immunosuppressive activity.
                                                                            antisclerotic; neuroprotective; antipsoriatic; a
antiparasitic; antibacterial; immunosuppressive;
                              Homo sapiens.
                                                             multiple sclerosis; rheumatoid arthritis
                                                                                                            complementarity determining region;
                                                                                                                           Human; neutralising antibody; interleukin-12;
                                                                                                                                                            Anti-hIL12 antibody light chain CDR2 amino acid sequence
                                                                                                                                                                                                                                                            AAB40001 standard; Peptide; 7 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 24; Page 232; 377pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-638250/61.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kaymakcalan Z, Labkov:
Veldman GM, Venturini
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Salfeld JG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (BADI )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Derbyshire EJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                             12
                                                                                                                                                                                                                                                                                                                                                ب
                                                                                                                                                                                                                                                                                                                                                                             1 GKNNRPS
                                                                                                                                                                                                                                                                                                                                            gndqrps
                                                                                                                                                                                                                                                                                                                                                                                                        4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASE AG.
GENETICS INST INC
                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human IL-12 disorders.
                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                            (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9905-0126603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Carmen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Labkovsky B,
                                                                                                                                                                                                                                                                                                                                                                                                                              59.0%;
57.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       s,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Warne
Smith
                                                                                                                                                                                                                                                                                                                                                                                                           Sakorafas P, Friorne NW, Widom A, ith S, Holtet TL,
                                                                              ion; CDR; antirheumatic; antiarthritic;
antipsoriatic; antiasthmatic; cardiant;
mmunosuppressive; Crohn's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       aberrant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Banerjee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      interleukin-12 (IL-12) used to rant IL-12 expression e.g. Crohn's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ee S, Tracey DE, White Friedrich S, Myles A; A, Elvin JG, Duncan ; TL, Du Fou SL;
                                                                                                                               IL-12; antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                               SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Duncan AR;
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                                                                                                                                                               IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       White M;
                                                                                                                                                               517
                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                0;
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AAB40012
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                                                                                                                                                                                                                                                                                             RESULT 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antiinflammatory; neuroprotective; antipsoriatic; antiasthmatic; cardiant; antiparasitic; antibacterial and immunosuppressive activity. The antibodies or antigen-binding fragments are useful in the treatment of disorders associated with detrimental release of human IL-12, especially Crohn's disease, multiple sclerosis and rheumatoid arthritis. They can also be used in the manufacture of a pharmaceutical composition
                                                                Human; neutralising antibody; interleukin-12; IL-12; antiinflammatory; complementarity determining region; CDR; antirheumatic; antiarthritic; antisclerotic; neuroprotective; antipsoriatic; antiasthmatic; cardiant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Salfeld JG, Roguska M, Paskind M, Banerjee S
Kaymakcalan Z, Labkovsky B, Sakorafas P, Frii
Veldman GM, Venturini A, Warne NW, Widom A,
Derbyshire EJ, Carmen S, Smith S, Holtet TL,
Homo sapiens
                                                 antisclerotic;
antiparasitic;
                                                                                                                                          Anti-hIL12 antibody light chain CDR2 amino acid sequence SEQ
                                  multiple
                                                                                                                                                                                                                                                       AAB40012 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           disease and multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New human antibody specific for human interleukin-12 (IL-12) used to treat disorders characterized by aberrant IL-12 expression e.g. Crohi disease and multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                1 gndqrps 7
                                                                                                                                                                                                                                                                                                                                                                                      1 GKNNRPS 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        treat human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000-638250/61.
                                                                                                                                                                                                                                                                                                                                                                                                                          4.
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GENETICS INST INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Figure 2G; 377pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                (first entry)
                                                   antibacterial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IL-12 disorders.
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                                                                                                                                                                                                                                                                                                                                                                                                                                          59.0%;
57.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 23;
Pred. No.
                                                   immunosuppressive; Crohn's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ranerjee S, III., Parafas P, Friedrich S, Marafas P, Elvin JG, Pou SI
                                                                                                                                                                                                                                                                                                                                                                                                                                           6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 21;
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                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                        .,
                                                                                                                                            ID 528.
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                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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AAB40013
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   anti-IL-12 antibody heavy and light chain complementarity determining region (CDR) amino acid sequences, and also includes variable region amino acid sequences. Other variable region amino acid sequences are given in AAB39517-B39560 and AAB40068-B40149. Sequences AAB39517-B39771 represent other CDR sequences. Light chain CDR3 consensus sequences are given in AAB40064-B40067. Primers used in the identification and construction of the antibodies of the invention are given in AAC61062-CG1071. The antibody of the invention is a neutralising antibody and has antirheumatic; antiarthritic; antiarthratic; antiarthratic; antiarthratic; antiarthratic; antiarthratic; antiarthratic; antiarthratic; antiparasitic; antibody and immunosuppressive activity. The antibodies or antigen-binding fragments are useful in the treatment of the antibodies or antigen-binding fragments are useful in the treatment.
complementarity determining region; CDR; antirheumatic; antiarthritic; antisclerotic; neuroprotective; antipsoriatic; antiasthmatic; cardiant; antiparastic; antibacterial; immunosuppressive; Crohn's disease; multiple sclerosis; rheumatoid arthritis.
                                                                      Human; neutralising antibody; interleukin-12;
                                                                                                        Anti-hIL12 antibody light chain CDR2 amino acid sequence SEQ ID 529.
                                                                                                                                                05-FEB-2001
                                                                                                                                                                                                                  AAB40013 standard; Peptide; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of disorders associated with detrimental release of human IL-12, especially Crohn's disease, multiple sclerosis and rheumatoid arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This invention relates to a new human antibody specific for human interleukin-12 (IL-12). The invention also includes antigen binding portions that bind to IL-12. Sequences AAB39485-B39516 represent human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 33; Figure 2G; 377pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  disease and multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Veldman GM, Venturini A, Derbyshire EJ, Carmen S,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Salfeld JG,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         treat disorders characterized
                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
tes 4; Conserv
                                                                                                                                                                                                                                                                                                             1 gndrrps
                                                                                                                                                                                                                                                                                                                                                 1 GKNNRPS
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GENETICS INST INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   also be used in the manufacture of a pharmaceutical composition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  human IL-12 disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7
                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AA;
                                                                                                                                              (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                      59.0%;
57.1%;
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Smith S,
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Sakorafas P, Friedrich
Marne NW, Widom A, Elvin
With S, Holtet TL, Du Fo
                                                                                                                                                                                                                                                                                                                                                                                                      Score 23; DB 21; Pred. No. 6.4e+05;
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                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     aberrant IL-12 expression e.g. Crohn's
                                                                      IL-12; antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Elvin JG,
                                                                                                                                                                                                                                                                                                                                                                                                                     Length 7;
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                                                                                                                                                                                                                                                                                                                                                                                     0;
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RESULT 15
AAB40014
ID AAB400
XX AAB4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CC This invention relates to a new human antibody specific for human continued interleukin-12 (Ir-12). The invention also includes antigen binding portions that bind to II-12. Sequences AAB39485-B39516 represent human continued anti-II-12 antibody heavy and light chain complementarity determining cregion (CDR) amino acid sequences, and also includes variable region camino acid sequences. Other variable region and acid sequences are created in AB39517-B39560 and AAB40068-B40149. Sequences AAB39561-B39771 represent anti-II-12 CDR3 related amino acid sequences AAB39772-B40063 crepresent other CDR3 related amino acid sequences, AAB39772-B40063 crepresent other CDR3 related amino acid sequences are CC given in AAB40064-B40067, Primers used in the identification and CC construction of the antibodies of the invention are given in AAC61062-C61071. The antibody of the invention are given in CC cantibody and has antirheumatic; antiarthritic; antisclerotic; antibody and has antirheumatic; antibacterial and immunosuppressive activity. CC cardiant; antiparasitic; antibacterial and immunosuppressive activity. CC cardiant; antiparasitic; antibacterial and immunosuppressive activity. CC despecially Crohn's disease, multiple sclerosis and rheumatoid arthritis. CC especially Crohn's disease, multiple sclerosis and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
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   antisclerotic; neuroprotective; antipsoriatic;
                              Human; neutralising antibody; interleukin-12; IL-12; antiinflammatory; complementarity determining region; CDR; antirheumatic; antiarthritic;
                                                                                                                                              Anti-hIL12 antibody light chain CDR2 amino acid sequence SEQ
                                                                                                                                                                                                                               05-FEB-2001
                                                                                                                                                                                                                                                                                                     AAB40014;
                                                                                                                                                                                                                                                                                                                                                                              AAB40014 standard; Peptide; 7 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity nes 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ey can also be used in the manufacture of a pharmaceutical composition treat human IL-12 disorders.
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Z, Labkovsky B, Sakorafas P, Friedrich S, Myles A;
Venturini A, Warne NW, Widom A, Elvin JG, Duncan ,
J, Carmen S, Smith S, Holtet TL, Du Fou SL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 23; DB 21;
Pred. No. 6.4e+05;
1; Mismatches 2
       antiasthmatic;
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                                                                                                                                                      ID 530.
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Search completed: June 12, Job time: 159 sec

2002, 11:17:34

QΥ

1 GKNNRPS 7 gndtrps

ᆫ

Matches

Conservative

Indels

0;

Gaps

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This invention relates to a new human antibody specific for human (CC) interleukin-12 (IL-12). The invention also includes antigen binding (CC) portions that bind to IL-12. Sequences AAB39485-B39516 represent human (CC) anti-IL-12 antibody heavy and light chain complementarity determining (CC) region (CDR) amino acid sequences, and also includes variable region (CDR) amino acid sequences. Other variable region amino acid sequences are (CC) given in ABB39517-B39560 and ABB40068-B40149. Sequences AAB39772-B40063 (CC) represent anti-IL-12 CDR3 related amino acid sequences, AAB39772-B40063 (CC) represent other CDR sequences. Light chain CDR3 consensus sequences are (CC) given in AAB40064-B40067. Primers used in the identification and (CC) antibody and has antirbedies of the invention are given in (CC) antibody and has antirbematic; antiarthritic; antisclerotic; antibody and has antirbematic; antisperiatic; antisclerotic; cC antibody and has antirbematic; antisperiatic; antisclerotic; antisclerotic; antibodies or antiperiatic; antisperiatic; antisclerotic; cC antibodies or antiperiatic; antibodies or antiperiatic; antisperiatic; antisclerotic; cC antibodies or antiperiatic; antibodies are useful in the treatment (CC) foliosorders associated with detrimental release of human IT-12, and also be used in the manufacture of a pharmaceutical composition (CC) and also be used in the manufacture of a pharmaceutical composition (CC) and also be used in the manufacture of a pharmaceutical composition (CC) and also be used in the manufacture of a pharmaceutical composition (CC) and also be used in the manufacture of a pharmaceutical composition (CC) and also be used in the manufacture of a pharmaceutical composition (CC) and also be used in the manufacture of a pharmaceutical composition (CC) and also be used in the manufacture of a pharmaceutical composition (CC) and also be used in the manufacture of a pharmaceutical composition (CC) and also be used in the manufacture of a pharmaceutical composition (CC) and the composition
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kaymakcalan Z, Labkovsky B, Sakora:
Veldman GM, Venturini A, Warne NW,
Derbyshire EJ, Carmen S, Smith S,
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                                                                                                                                                                                                                                     Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   disease and multiple sclerosis
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(GEMY ) GENETICS INST INC
                                                                                                                                                                                                                                                                                                                                      human IL-12 disorders.
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Score 23; DB 21;
Pred. No. 6.4e+05;
1; Mismatches 2;
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Holtet TL,
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                                                                                                Length 7;
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd

Run

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Result
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Maximum Match 100%
Listing first 45 s
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AAU02694
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                                                                                                                                                                                                                                                                     Description
Anti-platelet
                  CDR region of
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PF4-related octape	AAR61400	16	8	41.8	23
Sequence of angiog	AAR26212	13	8		23
wohl-8. Synthetic	AAR25461	13	8		23
Н	AAW28434	18	6	۲.	23
inhibit	AAW28428	18	6	41.8	23
PECAM-1 cyclic inh	845	18	6		23
	AAW28379	18	5		23
PECAM-1 inhibitor	AAW28439	18	<sub>U</sub>		23
	AAW28436	18	5	41.8	23
$\sim$	AAW28455	18	ر ت	٠	23
Saccharomyces cere	AAG88169	22	10		24
Saccharomyces cere	AAG87965	22	10		24
Saccharomyces cere	AAG87964	22	10	٠	24
Saccharomyces cere	AAG87059	22	10		24
Saccharomyces cere	AAG85139	22	10	•	24
Arabidopsis thalia	AAG83494	22	10		24
Human complementar	AAG97034	22	10	•	24
Human complementar	AAG97032	22	10		24
Human complementar	AAG96432	22	10		24
Human complementar	AAG96430	22	10	•	24
Human complementar	AAG96424	22	10	•	24
Schistosoma elasta	AAW21482	16	10	•	24
Hepatitis B virus	AAB75901	22	9		24
	AAB75900	22	9		24
<del>p</del> e	AAY47834	20	9		24
Saccharomyces cere	AAG86891	22	10	5	25
comp	AAG95162	22	10	.51	25
variabl	016	14	11	47.3	26
Varicella zoster g	AAR88549	17	6	7.	26
	706	22	10	٥.	28
Synthetic immunogl	228	19	11	4	30
.ight ch	ω	22	11	8	32
icella zoster	885	17	10	8	32
Anti-platelet glyc	AAY95218	21	9	۳.	34

## ALIGNMENTS

RESULT AAG65304 II-18; interleukin-18; human; antibody; antirheumatic; cerebroprotective; nootropic; neurological; antiinflammatory; antiparkinsonian; cardiant; AAG65304 standard; protein; 11 09-FEB-2001; 2001WO-US04170 WO200158956-A2 Anti-IL-18 antibody 2E1 light chain CDR3 fragment. 30-NOV-2001 AAG65304; 16-AUG-2001. Homo sapiens. immunosuppressive; (first entry) antidepressant; neuroleptic; AA. hepatotropic;

ACC SCREEN STANDARD STANDARD SCREEN STANDARD SCREEN 10-FEB-2000; 2000US-0181608

(BADI ) BASF AG.

Ghayur T, Duncan AR, Lennard SN; Dixon RW, Roguska Brocklehurst SM, Mankovich 'nΆ Labkovsky B, Shorrock CP, Thompson JE; Salfeld J;

WPI; 2001-550020/61.

Novel antibodies and compounds capable of binding to human interleukin-18 useful for treating, e.g., inflammatory disorders.

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RESULT
AAG62910
ID AAG6
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AC AAG6
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DE Comp
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Anti
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         inflammatory bowel disease, and osteoarthritis), neurological disorders (e.g., Huntington's chorea, Parkinson's disease, Alrheimer's disease, and stroke), heart failure, myocardial infarction, autoimmune diseases such as autoimmune hepatitis and autoimmune neutropaenia, and mental disorders (e.g., depression and schizophrenia). Treatment with an anti-IL-18 antibody may occur before, concurrent, or after administration of a second agent selected from an antibody, or fragment, capable of binding human IL-12, methotrexate, anti-tumor necrosis factor, corticosteroids, cyclosporin, rapamycin, FK506, and non-steroidal anti-inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention provides isolated antibodies, or antigen-binding portions that are capable of binding to human interleukin-18 (IL-18). The antibodies may be used to inhibit human IL-18 activity in, and treat a disorder where IL-18 is detrimental in, a human subject suffering from, inflammatory disorders (e.g., rheumatoid arthritis, Crohn's disease,
 AAG62970-AAG63005 represent complementarity determining of VL and VH chains of antibodies of the invention. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Complementarity
                                                       Claim 1; Page
                                                                                          motecules and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antibody; light chain; VL; amyloid protein; blood brain barrier; endothelial cell; brain cell antigen; inflammation; adhesion mol
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                                                                                                                                                                                                   Webster C,
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                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                  transferrin receptor; neurological disease; Alzheimer's disease;
prion disease; AIDS-related dementia; epilepsy; brain injury.
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                                                                                                                                                                                                                                     (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
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                                                                                                              cross
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence represents an anti-IL-18 antibody
                                                                                      panel of antibodies for selecting specific binding members
the blood brain barrier, for use in delivering different
and treating neurological diseases -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11
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ilarity 100.0%;
Conservative (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        determining region 3 (CDR3) of VL chain of clone
                                                     109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               peptide;
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                                                                                                                                                                                                   Ward G,
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Pred. No. 0.00028;
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region 3 (CDR3) specification
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                                                        each comprising an antibody VH and/or VL variable domain and capable, when displayed on the surface of filamentous bacteriophage particles or in the case of a specific binding member comprising the D5 VH and/or VL
                                                                                                                                                             AAG62970-AAG63005 represent complementarity determining region 3 (CDR of VL and VH chains of antibodies of the invention. The specification describes a mixture or panel of 5 different specific binding members,
                                                                                                                                                                                                                                                                                                                                                        Mixture or panel of antibodies for selecting specific binding members that cross the blood brain barrier, for use in delivering different molecules and treating neurological diseases \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Antibody; light chain; VL; amyloid protein; blood brain barrier; endothelial cell; brain cell antigen; inflammation; adhesion molecule; transferrin receptor; neurological disease; Alzheimer's disease; prion disease; AIDS-related dementia; epilepsy; brain injury.
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                                                                                                                                                                                                                                                                                            Claim 1; Page 76; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAG62974 standard; peptide;
                                    variable domain when bound to human serum amyloid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Webster C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13-DEC-1999;
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90.0%;
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through a mammalian blood brain barrier (BBB).

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AAG62970-AAG63005 represent complementarity determining region 3 (CDR3) of VL and VH chains of antibodies of the invention. The specification describes a mixture or panel of 5 different specific binding members, each comprising an antibody VH and/or VL variable domain and capable, when displayed on the surface of filamentous bacteriophage particles or in the case of a specific binding member comprising the D5 VH and/or VL variable domain when bound to human serum amyloid protein, to pass through a mammalian blood brain barrier (BBB). The panel is useful for the selection of specific binding members with a desired property such as ability to cross BBB, ability to bind endothelial cells or other brain cell antigen, ability to bind areas of inflammation in the brain or BBB breakdown or ability to bind intracellular adhesion molecules and to bind transferrin receptor. The antibodies are useful in diagnosis, prophylaxis and treatment of human or animal body, including neurological diseases,
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nes 9; Conserv
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90.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
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Pred. No.
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Best Local
                           when displayed on the surface of filamentous bacteriophage particles or in the case of a specific binding member comprising the D5 VH and/or VL variable domain when bound to human serum amyloid protein, to pass through a mammalian blood brain barrier (BBB). The panel is useful for the selection of specific binding members with a desired property such as ability to cross BBB, ability to bind endothelial cells or other brain cell antigen, ability to bind areas of inflammation in the brain or BBB breakdown or ability to bind intracellular adhesion molecules and to bind transferrin receptor. The antibodies are useful in diagnosis, prophylaxis and treatment of human or animal body, including neurological diseases, such as Alzheimer's disease, prion disease, AIDS-related dementia, epilepsy and traumatic brain injury and any diseases involving inflammation occurring within the brain or central nervous system.
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                                                                                                                                                                                                                                                                                AAG62970-AAG63005 represent complementarity determining region 3 (CDR3) of VL and VH chains of antibodies of the invention. The specification describes a mixture or panel of 5 different specific binding members, each comprising an antibody VH and/or VL variable domain and capable,
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Best Local Similarity 90.
Matches 9; Conservative
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Best Local
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                                                                                                                                    Sequence
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m VL}
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mixture or panel of antibodies for selecting specific binding member that cross the blood brain barrier, for use in delivering different molecules and treating neurological diseases
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transferrin receptor; neurological disease; Alzheimer's disease;
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RESULT AAG62982

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1; Page 76; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         molecules and treating neurological diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mixture or panel of antibodies for selecting specific binding members that cross the blood brain barrier, for use in delivering different
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-398131/42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Webster C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-DEC-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-JUN-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Complementarity determining region 3 (CDR3) of VL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAG62982;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAG62982 standard; peptide; 11 AA
               01-OCT-2001 (first entry)
                                                                                 AAG62998 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200144300-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
                                                                                                                                                                                                                                   Local Similarity hes 8; Conserv
                                                                                                                                                                     N
                                                                                                                                                                                                   2 SRDSSGIHVV 11
                                                                                                                  9
                                                                                                                                                                     srdssgnhvl 11
                                                                                                                                                                                                                                                                                                                         1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                         Α,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0170599
                                                                                 peptide;
                                                                                                                                                                                                                                                    70.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ward G,
                                                                                    11
                                                                                                                                                                                                                                                    Score 39; [
Pred. No. 0.
                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Miller K;
                                                                                                                                                                                                                                                    DB 22;
0.37;
                                                                                                                                                                                                                                                                      Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    chain of clone
                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                    0;
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                                                                                                                                                                                                          RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                          CC of VL and VH chains of antibodies of the invention. The specification of describes a mixture or panel of 5 different specific binding members, cc each comprising an antibody VH and/or VL variable domain and capable, when displayed on the surface of filamentous bacteriophage particles or in the case of a specific binding member comprising the D5 VH and/or VL variable domain when bound to human serum amyloid protein, to pass ct through a mammalian blood brain barrier (BBB). The panel is useful for the selection of specific binding members with a desired property such cc as ability to cross BBB, ability to bind endothelial cells or other brain cc ell antigen, ability to bind areas of inflammation in the brain or BBB creakdown or ability to bind areas of inflammation molecules and to bind transferrin receptor. The antibodies are useful in diagnosis, prophylaxis and treatment of human or animal body, including neurological diseases, cepilepsy and traumatic brain injury and any diseases involving inflammation occurring within the brain or central nervous system.
                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 76; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  molecules and treating neurological diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mixture or panel of antibodies for selecting specific binding members that cross the blood brain barrier, for use in delivering different
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200144300-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Antibody; light chain; VL; amyloid protein; blood brain barrier; endothelial cell; brain cell antigen; inflammation; adhesion moltransferrin receptor; neurological disease; Alzheimer's disease; prion disease; AIDS-related dementia; epilepsy; brain injury.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Complementarity determining region 3 (CDR3) of VL chain
                                                                                                                                            AAU02694;
                                                                                                                                                                           AAU02694 standard; Peptide; 9
                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-398131/42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-NOV-2000; 2000WO-GB04501.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                             CDR region of anti-adipocyte antibody heavy chain,
                                                                                                             29-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Webster C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-JUN-2001
                              heart disease;
                                                                                                                                                                                                          10
                                                                                                                                                                                                                                                         2
                                                                                                                                                                                                                                                                                        2 SRDSSGIHVV 11
                                                                                                                                                                                                                                                        srdssgnhvl 11
                                                                                                                                                                                                                                                                                                                      Similarity
8; Conserv
                                             adipocyte;
                                                                                                                                                                                                                                                                                                                                                                                                     11
                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Osbourn J,
                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                     AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99US-0170599
                              complementarity
                                             heavy chain; light chain;
                                                                                                                                                                                                                                                                                                                                       70.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ward G,
                                                                                                                                                                                                                                                                                                                    Pred. No. 1; Mismatcl
                               determining
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Miller
                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                       DB 22;
0.37;
                               region;
                               ; obesity;
jion; CDR.
                                                                                                                                                                                                                                                                                                                                                    Length 11;
                                                                                                                                                                                                                                                                                                                         Indels
                                                                              FAT 58.
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                                                                                                                                                                                                                                                                                                                       0;
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                                                                                                                                                                                                                                                                                                                         Gaps
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Homo sapiens

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RESULT 1
AAY95197
ID AAY9
XX AAY9
AC AAY9
AX 29-A
XX Vari
KW Vari
KW Glyc
KW anti
KW A
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Best Local Similarity
Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            33333333333333333333×38
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU02501-AAU02635, and AAU02641-AAU02748 represent the amino acid sequences of anti-adipocyte monoclonal antibody heavy chain, light chain, and heavy chain complementarity determining regions (CDR) of the invention. The antibodies can be used in the treatment of obesity and obesity related diseases. The antibodies can be used to deliver drugs or pro-drugs directly to the fat mass of an obese patient or the antibody can be used as a therapeutic itself. Antibodies binding specifically to adipocytes can be used to activate the immune system to destroy the cells by complement mediated lysis. The antibodies may be labeled with a detectable label such as radiolabel, fluorescent or chemical group and used in methods of diagnosis in human subjects e.g. to determine the presence of antipen on the surface of an adipocyte to detect or determine the presence or level of adipocytes in a cell or tissue sample. The antibodies can be used as an alternative means of treatment for obese patients.
                                  11-MAY-2000
                                                                                                    WO200026667-A1
                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY95197;
                                                                                                                                                                                                                                                                                                                                                                                                  Anti-platelet glycoprotein Ib human HIb-1 VL CDR3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY95197 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   patients other than undergoing surgery to remove excess fat. Antibodies for different types of fat deposits can also be produced e.g. intra-
abdominal fat associated with heart disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 7; Page 78; 182pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Panel of specific binding members of antibody molecules which bind whole adipocytes is used in the treatment of obesity and obesity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; AAS03470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Edwards BM, Main SH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3 RDSSGIHV 10
||||| |:
2 rdssgyhi 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001-282031/29
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0158812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     63.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 35;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
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RESULT 12
AAY95218
ID AAY952
XX AAY952
XX AAY952
XX 29-AUG
XX 29-AUG
XX Variab
KW 21ycop
KW 31ycop
KW antith
KW comple
XX
PM WO2000
XX
PM WO2000
XX
PM 11-MAY
XX
PF 29-OCT
XX
PR 30-OCT
XX
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Best Local S
Matches 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 basis of their binding to platelet GPIb. Whether displayed as surface proteins on a phagemid or secreted as free sefv by Escherichia coli, the HIB sefv clones are capable of inhibiting von Willebrand factor-dependent aggregation of platelets. The scare composed of native human protein sequences and are therefore attractive potential reagents for therapeutic purposes. They provide a new class of antithrombotic agents, useful for the prevention of platelet-dependent thrombi in diseased arteries, because of platelet-dependent thrombi in diseased arteries.
                                                                                                                                                                                                            Variable light chain; single chain antibody; scFv; human; HIb-3; glycoprotein Ib alpha; platelet; aggregation; antiaggregant; antithrombotic; thrombus; therapy; diagnostic; CDR3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               bypass grafts, dialysis etc., and can also be used as diagnostic reagents. Methods of inhibiting aggregation of platelets, of binding human platelet GPID alpha and of selecting a VH or VL region of an antibody that inhibits platelet aggregation are claimed. Fragments of the scFv VH or VL chain, including CDR fragments, are also claimed.
                     30-OCT-1998;
                                                      29-OCT-1999;
                                                                                      11-MAY-2000
                                                                                                                                                                                                                                                                                                                                                     AAY95218;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              against platelet glycoprotein Ib (GPIb). The HIb series of scFv was isolated from a human synthetic VH and VL scFv library on the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence is that of complementarity determining region 3 (CDR3) of the light chain variable region (VL) of human single chain antibody (scFv) Hb-1 (see AAY95198), which is direct
                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                           complementarity
                                                                                                                                                                                                                                                                                Anti-platelet glycoprotein Ib human HIb-3 VL CDR3.
                                                                                                                                                                                                                                                                                                                     29-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                       AAY95218 standard; Peptide; 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 21; Fig 5; 89pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Isolated nucleic acid molecule encoding anti-human platelet glycoprotein Ib alpha molecule useful for producing antibodies which inhibit platelet aggregation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-365744/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Miller JL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    inhibit platelet aggregation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (MILL/) MILLER J L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-OCT-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity hes 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ||||||| |
| srdssgnh 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 SRDSSGIH 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                 (first entry)
                                                    99WO-US25495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0106275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US25495
                                                                                                                                                                                           determining region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61.8%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 34;
Pred: No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 9
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(MILL/) MILLER J L.

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AAR88543
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Best Local S
Matches 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       surface proteins on a phagemid or secreted as free SCFV by
Scherichia coli, the HIB SCFV clones are capable of inhibiting
You Willebrand factor-dependent aggregation of platelets. The SCFV
are composed of native human protein sequences and are therefore
attractive potential reagents for therapeutic purposes. They
provide a new class of antithrombotic agents, useful for the
prevention of platelet-dependent thrombi in diseased arteries,
bypass grafts, dialysis etc., and can also be used as diagnostic
reagents. Methods of inhibiting aggregation of platelets, of
binding human platelet GPID alpha and of selecting a VH or VL
region of an antibody that inhibits platelet aggregation are
claimed. Fragments of the SCFV VH or VL chain, including CDR
fragments, are also claimed.
                             Fowler WJ,
Layton GT;
WPI; 1996-097630/10
                                                                                                                                                                                                                                                                              Glycoprotein; gE; VZV; antibody; gB; infection; diagnosis; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                  AAR88543;
                                                                                                                                                                                                                                                                                                                                                                                                                                 AAR88543 standard; peptide; 10 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence is that of complementarity determining region 3 (CDR3) of the light chain variable region (VL) of human single chain antibody (scFv) HID-3 (see AAY95219), which is directed against platelet glycoprotein Ib (GPID). The HID series of scFv was isolated from a human synthetic VH and VL scFv library on the basis of their binding to platelet GPID. Whether displayed as
                                                                                                               07-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                              09-SEP-1996 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Isolated nucleic acid molecule encoding anti-human platelet glycoprotein Ib alpha molecule useful for producing antibodies which inhibit platelet aggregation -
                                                                                                                                               03-JUL-1995;
                                                                                                                                                                                                                  WO9601900-A1
                                                                                                                                                                                                                                                 Varicella-zoster virus.
                                                                                                                                                                                                                                                                                                                              Varicella zoster gE glycoprotein residues 126-135.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 21; Fig 7; 89pp; English.
                                                                              (BRBI-) BRITISH BIOTECH PHARM LTD
                                                                                                                                                                                 25-JAN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-365744/31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Miller JL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
tes 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ||||||| |
| 2 srdssgnh 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 SRDSSGIH 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                            Garcia-valcarcel Munoz-repiso M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AA;
                                                                                                               94GB-0013751
                                                                                                                                               95WO-GB01566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61.8%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 34; DB 21;
Pred. No. 6.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                             immunoreactive; immune response;
                                            Harper DR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The scFv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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RESULT :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 grom these six proteins, gE and gB are the major immunoreactive glycoproteins. These sequences can be used for stimulating an immune response against VZV infection. These peptides can also be used for determining the presence of anti-VZV gE antibodies in a sample, and in the diagnosis of VZV infection. The antibodies against these sequences can be used for passive immunisation treatment, and in diagnostic applications. This sequence contains the major VZV gE immunodominant epitope and allows the development of products which can produce an enhanced and broader immuno records.
                                               Antibodies that bind antagonistically to osteoprotegrin binding protein, useful for treating osteoporosis, metastasis of cancer bone, rheumatoid arthritis, hypercalcaemia of malignancy and steroid-induced osteoporosis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAR88522-R88549 represent fragments of the Varicella-Zoster virus (VZV) gE glycoprotein. This sequence represents residues 126-135 of gE. These sequences are used to create antibodies against the VZV gE glycoprotein. gE is one of six glycoproteins encoded by the VZV genome.
                                                                                                                                                                                                                                         23-FEB-2000; 2000US-0511139
22-FEB-2001; 2001US-0791153
                                                                                                                                                                                                                                                                                                                                                                                                                                                    osteopathic; osteoprotegrin binding protein; osteoclast formation; bone resorption; loss of bone mass; bone tumour; osteoporosis; bone cancer; rheumatoid arthritis; hypercalcaemia of malignancy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Antibody; light chain; CDR2; complementarity determining region; OPGbp; osteopathic; osteoprotegrin binding protein; osteoclast formation;
                                                                                                                                     WPI; 2001-557706/62.
                                                                                                                                                                    Deshpande RV, Hitz A,
                                                                                                                                                                                                                                                                                             23-FEB-2001; 2001WO-US05973
                                                                                                                                                                                                                                                                                                                                30-AUG-2001.
                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                     steroid-induced osteoporosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-DEC-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                       (AMGE-) AMGEN INC
                                                                                                                                                                                                                                                                                                                                                                  WO200162932-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Antibody light chain variable region CDR3 #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU08356;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU08356 standard; peptide; 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 3; Page 37; 47pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New isolated Varicella Zoster gE polypeptide(s) - used to develop products for use in vaccines, passive immunisation and diagnosis involving VZV infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
nes 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | :||||:
3 ddtgihvi 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4 DSSGIHVV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and broader immune response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   58.2%;
62.5%;
                                                                                                                                                                      Boyle WJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 32;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                      Sullivan JK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 17; Length 10;
7.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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Claim 14; Page 129; 239pp; English

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to an antibody or antigen binding domain (or fragment, variant or derivative), which binds to an osteoprotegrin binding protein (OPGbp) and which is an antagonistic antibody. The antibody or antigen binding domain may be administered to inhibit osteoclast formation or activation, inhibit bone resorption in a mammal, prevent or treat loss of bone mass in a mammal and to prevent or treat cumour cell growth in bone. The loss of bone mass results from osteoporosis, metastasis of cancer to bone, rheumatoid arthritis, hypercalcaemia of malignancy and steroid-induced osteoporosis. The present sequence is an antibody light chain variable region complementarity determining region, CDR3, which can be incorporated into an antibody variage highly deaping of the invention
A new method has been developed for detecting a papilloma virus infection in an organism. The method comprises: (1) obtaining a sample of cells from the potential infection site; (i1) contacting the cells with a molecule binding specifically to papilloma virus E4 protein, and (iii) monitoring the binding. The method is useful to detect papilloma virus infections in organisms (especially mammals) and especially HPV infections (e.g. with HPV16, 18, 33, 35, 45, 51, 56, 58 or 61) in humans. Papilloma viruses cause epithelial tumours in humans varying in severity depending on the infection site and HPV type involved. The method is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 03-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic immunoglobulin TVG 405 light chain CDR3 peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW62282;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW62282 standard; peptide; 11 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   an antibody/antigen binding domain of the invention.
                                                                                                                                                                                                Example 2; Page 17; 52pp; English.
                                                                                                                                                                                                                                                         Detecting papilloma virus infection using molecule binding to E4 protein - useful, e.g. in screening for pre-cancerous cervical lesions and to determine type(s) of human papilloma virus infecting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9825145-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HPV16; human papilloma virus; epithelial tumour; cervical cancer;
precancerous cervical lesion; screening; detection; infection; cervix;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-SEP-1998
                                                                                                                                                                                                                                       numan patients
                                                                                                                                                                                                                                                                                                                                         WPI; 1998-333497/29.
                                                                                                                                                                                                                                                                                                                                                                                                                   (MEDI-) MEDICAL RES COUNCIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human papillomavirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HPV E4; immunoglobulin; antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity hes 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  stdssgtyvv 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                          96GB-0025142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97GB-0018745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97WO-GB03321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  58.2%;
70.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. 8.6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 22; Length 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
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particularly useful to determine papilloma infection in the mammalian CC cervix and especially to screen for pre-cancerous cervical lesions in CC humans, since over 90% of cervical carcinoma patients show cervical HPV CC infection. It is also useful to determine the type(s) of HPV infection in CC a patient, by using a molecule binding specifically to a subset of HPV E4 CC proteins. This is important, since progression to malignant disease (and CC proteins of the colinical prognosis) is dependent on HPV type. Molecules capable of binding E4 are also useful to target anticancer/antiviral agents capable of destroying papilloma viruses and/or papilloma virus-infected cells. CC The present sequence represents a synthetic immunoglobulin TVG 405 light CC chain CDR3 peptide, from an example of the present invention.
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Search completed: June 12, 2002, 11:11:06
Job time: 227 sec

Db dg

2 SRDSSGIHVV 11 |||||| : | 2 srdssggnav 11 Query Match
Best Local Similarity

54.5%; 70.0%;

Score 30; DB Pred. No. 21; 1; Mismatches

19; Length 11; 2; Indels

0;

Gaps

0;

Matches

Conservative